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TONAL LANGUAGE IN ALBAN BERG'S *Sieben Frühe Lieder*

BY

© LORI BURNS

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL

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IN

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FALL, 1986

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Lori Burns

Lori Burns

302-10547 85 Avenue
Edmonton, Alberta
T6E 2K5

July 30, 1986

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "Tonal Language in Alban Berg's Sieben Frühe Lieder," submitted by Lori Burns in partial fulfilment of the requirements for the degree of Master of Music in Music Theory.

C.O. Lewis, Supervisor

A.J. Fisher

G. Marahrens

July 30, 1986

ABSTRACT

Alban Berg's Sieben Frühe Lieder represent, in a single collection, three stages in the growth of the composer's tonal language. While some of the songs conform to Schenkerian diatonic models, others exemplify what Gregory Proctor calls "19th-century chromatic tonality." Also represented is the music of the "transitional" period which is not clearly tonal in either the classical diatonic or the 19th-century chromatic sense.

The present study examines each individual song, and investigates the tonal development throughout the set as a whole. The three tonal languages are defined, following the theories of Heinrich Schenker, Gregory Proctor, Robert Bailey, and Arnold Schoenberg. Given our definition of these languages, it becomes evident that Berg's tonal development is articulated by the gradual infiltration of chromaticism from the foreground to the background level of composition.

Th songs "Im Zimmer" and "Nachtigall" are conventionally diatonic; that is, the chromaticisms function as purely elaborative foreground events. The chromaticisms in "Schilflied" and "Sommertage" do not merely function as foreground elaborations, but are also present at the middleground level of composition. In the music of "Traumgekrönt," "Liebesode," and "Nacht," the chromatic scale becomes the basis for all tonal material, and results in both a pervasive semitone voice-leading at the foreground, and a chromatic structural background.

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CHAPTER I

INTRODUCTION

The music of Alban Berg enjoyed recognition during the composer's lifetime and is still more widely performed than that of his contemporaries Schoenberg and Webern. Douglas Jarman suggests, however, that

> . . . Berg's music, has, until recently, received little critical or analytical attention; as well as being the most generally popular of the Second Viennese School, Berg is also the one whose aims and achievements are least understood.[1]

Indeed, it has only been in the last twenty years that any substantial analytical studies of Berg's music have appeared. Jarman points out that detailed studies of Altenberg Lieder, Der Wein, Sieben Frühe Lieder, and Lulu were only made possible with the publication of complete orchestral scores over thirty years after Berg's death in 1935.[2] Mark DeVoto's work with Altenberg Lieder in 1966-1967, and George Perle's more recent analyses of Wozzeck (1980) and Lulu (1985) are perhaps indicative of the path which Berg scholarship will continue to take.

Berg composed his Sieben Frühe Lieder for piano and voice between 1905 and 1908 while he was still studying with Arnold Schoenberg. In 1928, he revised and orchestrated the songs, and published the piano-vocal score. On the sixth of November, 1928, the orchestral version was premiered.[3] The well-known biographies of Berg offer conflicting opinions on the actual date of publication for the orchestral version. Theodor Adorno gives the date 1928;[4] Mosco

Carner, 1955;[5] George Perle, in the New Grove article, 1969;[6] and Hans Redlich's 1955 biography states that the score had not then been published.[7] The Universal Edition score gives the copyright dates of 1959 for the music, and 1955 for the English translation of the text. Universal Edition confirms George Perle's date of 1969 as the first printing of the orchestral version. The copyright date is given as 1959, since the score was engraved and the proof copies were circulated then.[8]

Rosemary Hilmar, in her catalogue of the Berg manuscripts located at the Österreichische Nationalbibliothek in Vienna, mentions that, in 1928, while preparing the orchestral version, Berg revised the piano-vocal setting of the songs. There are corrections and pasteovers in the holograph for the piano-vocal version which served as the Stichvorlage for the edition that was published on 3 November, 1928.[9] This holograph, therefore, may represent at least two layers of composition--the layer prior to the corrections and pasteovers could be a copy of the original version for piano and voice. A significant amount of time elapsed between the original composition of the songs in 1905-1908, and the corrections made for the published version in 1928. We can only presume that the changes made by Berg in 1928 were stylistically consistent with his tonal language of 1905-1908. Also problematic are the discrepancies between the published piano-vocal and orchestral versions. In some of the songs, these differences are very great. Hilmar does not discuss the holograph for the orchestral version, which is in a copyist's hand with autograph markings and is deposited as a loan in the music collection of the Wiener Stadt- und Landes Bibliothek.[10]

The actual chronology of composition within the set of songs is unknown. Jarman states that it is impossible to date any of the songs except "Im Zimmer," the manuscript of which is dated, Summer, 1905, and "Liebesode," dated September, 1906.[11] Mosco Carner gives dates of composition for each song, but does not document his information.[12] His dating scheme is shown in Example I-1.

Example I-1: Carner's Chronology of Composition.

Chronological Order	*Order of Publication*
No. 1, 'Im Zimmer' (Schlaf). Summer 1905	No. 5
No. 2, 'Die Nachtigall' (Storm). 1905(–6)	No. 3
No. 3, 'Liebesode' (Hartleben). Autumn 1906	No. 6
No. 4, 'Traumgekrönt' (Rilke). Summer 1907	No. 4
No. 5, 'Nacht' (Hauptmann). Spring 1908	No. 1
No. 6, 'Schilflied' (Lenau). Spring 1908	No. 2
No. 7, 'Sommertage' (Hohenberg). Summer 1908	No. 7

It is tempting, although dangerously speculative, to formulate a possible chronology for the songs which would reflect Berg's gradual movement away from the common-practice tonal language. The following order represents such a development: "Im Zimmer," "Nachtigall," "Sommertage," "Schilflied," "Traumgekrönt," "Liebesode," "Nacht." There is, however, no known documentary evidence to support such a suggestion.

In recent attempts to understand and categorize the tonal music of such composers as Schoenberg and Berg, it has become necessary to distinguish between the tonal syntax of eighteenth- and early nineteenth-century common-practice music, and that of late nineteenth-

and early twentieth-century post-common-practice music. Gregory Proctor has made a significant contribution to this study with his Technical Bases of Nineteenth-Century Chromatic Tonality: A Study in Chromaticism, wherein he establishes clearly the sources of chromaticism in both "classical diatonic tonality," and "19th-century chromatic tonality."[13]

Proctor defines chromaticism in classical diatonic tonality "as the product of the interaction of different diatonic scales, without reference to any particular chromatic scale system (of which there are any number)."[14] He accounts for two "specific processes by which notes foreign to the fundamental major or minor scale are generated."[15] These are Schenker's formulation of mixture and tonicization:

> The chromatic notes derived through these processes do not require the inclusion of concepts like a prior chromatic scale, or an equally tempered twelve-note collection. By virtue of their diatonic origin, chromatic notes introduced by these processes have no theoretical reference to the equal-tempered pitch-class collection. . . . This is the fundamental distinction between the chromatic practice of diatonic tonality, and that of the chromatic system.[16]

Schenker himself did not consider mixture to be a chromatic phenomenon, but rather, a natural "combination of major and minor as a substitute for the old [modal] systems."[17] He accounts for chromaticism as having arisen from the processes of tonicization and microtonicization:

> Not only at the beginning of a composition but also in the midst of it, each scale-step manifests an irresistible urge to attain the value of the tonic for itself as that of the strongest scale-step. If the composer yields to this urge of scale-step within the diatonic system of which this scale-step forms part, I call this process tonicalization and the phenomenon itself chromatic.[18]

. . . .

> It is not only the scale-step, as a comprehensive unit of higher order, that strives to attain the value of a tonic; often it is an individual tone, even one of quite secondary importance. This urge, too is satisfied with the help of the preceding individual note. . . . This shows the process of tonicalization in the narrowist confines, en miniature.[19]

Unlike Schenker, Proctor includes mixture as a source of chromaticism in a diatonic tonal context, and makes the following distinction between mixture and tonicization:

> . . . "mixture" refers to scale change without change of tonic, while "tonicization" refers to scale change with change of tonic.[20]

In analyzing chromatic passing or neighbouring notes then, it is possible to determine their origins in either mixture or tonicization.

The following are some common chromatic chords (and their derivations) in diatonic tonality:

1) the diminished seventh chord, which derives from mixture;[21]

2) the common-tone diminished seventh chord, which "results from the microtonicization of the third and fifth of the object chord with an added whole step neighbor to the fifth to fill out the sonority;"[22]

3) the Neapolitan sixth chord, to which Schenker refers as the "Phrygian II," and for which Proctor accounts as either mixture from the Phrygian mode, or tonicization of the subdominant, or submediant;[23]

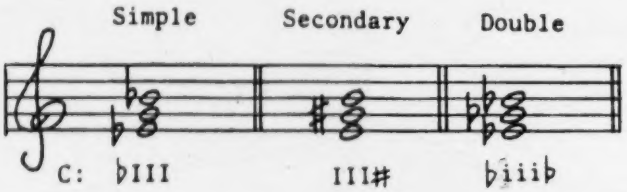
4) the augmented sixth chords, which result from a combination of "mixture of the minor mode's sixth degree [and] the microtonicization of the dominant";[24]

5) the augmented triad, which derives from a microtonicization "of the first chord in a pair of major mode fifth-related chords, either as I-IV or as a V-I succession."[25]

We may distinguish between three types of mixture--simple mixture (the borrowing of an element from the parallel mode), secondary

mixture (the alteration of the quality of a triad without using scale degrees from the parallel mode), and double mixture (the application of secondary mixture to a triad achieved through simple mixture).[26] Example I-2 demonstrates the three types of mixture.

Example I-2: Simple, Double, and Secondary Mixture



Proctor begins his description of chromatic tonality by observing that "all of the operations of the classical system are retained in the body of techniques. Also still present are the diatonic processes for generating chromatic notes: mixture and tonicization."[27] The significant distinction between the two styles is that which has been noted by Schoenberg, as well as contemporary theorists--the "transition from twelve major and twelve minor keys to twelve chromatic keys."[28] The substitution (for the diatonic scales) of the chromatic scale as the source of all tonal material "opens up new structural possibilities, which, when used in proliferation, eventually work to undermine the specific qualities of tonal directedness peculiar to classical tonality."[29] One such structural possibility results from the operation of enharmonic equivalence as a tonal rather than a notational

phenomenon.[30] This leads directly to the exploitation of symmetrical divisions of the octave:

> Spaces not symmetrically divisible in diatonic tonality are so divisible under chromatic tonality, since enharmonic equivalence equates the distance between some note and any of the enharmonic spellings of some other note against which it is measured. . . . Simple symmetrical divisions of the octave are:
>
> 12 steps of size 1 (12 x 1)
> 6 " 2 (6 x 2)
> 4 " 3 (4 x 3)
> 3 " 4 (3 x 4)
> 2 " 6 (2 x 6) [31]

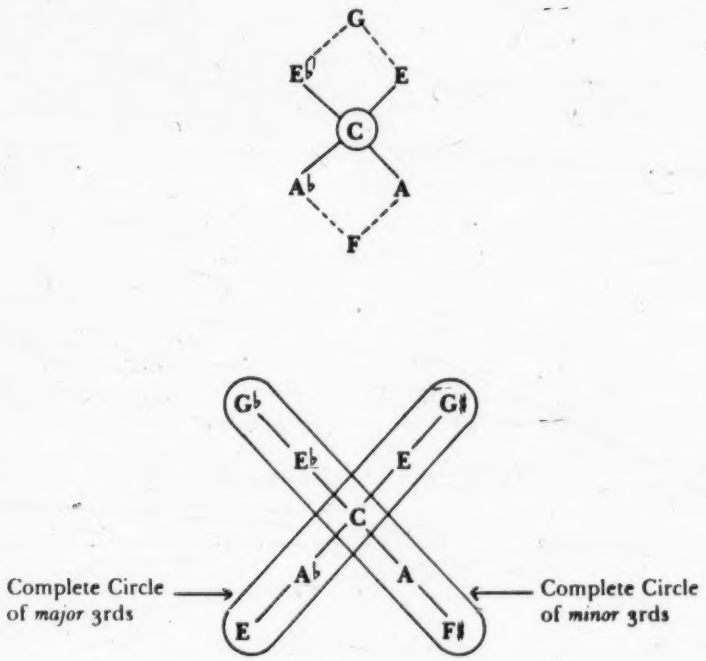
In purely symmetrical structures, such as those outlined by Proctor, there is no inherent hierarchical focus which is comparable to the tonic-dominant axis of diatonic tonality.

Like Proctor, Robert Bailey points out that the erosion of the tonic-dominant polarity of the diatonic system results in new structural possibilities. Whereas Proctor asserts that the new system is based on symmetrical divisions, Bailey states that the polarities of the new system are based on third relations which may or may not result in symmetrical structures:

> For a given tonic, there are four possible thirds--the minor and major thirds above, and the minor and major thirds below. Extension beyond these particular 3rds in either direction can be accomplished in two ways. The first possibility is to progress on to V (in the upward direction) or to IV (in the lower direction). . . . The alternative is to work along an axis of 3rds of the same quality (major or minor), perhaps even to the point of making a complete circle of major or minor thirds.[32]

Example I-3 shows Bailey's two possible structures of third relations. It is significant to note that, in the case of the progression through a chain of thirds to V, "the tonality based on V frequently functions not as the dominant but rather as the III of III."[33]

Example I-3: Third Relations



To the diatonic principles of voice leading which, as Proctor points out, are maintained in chromatic tonality, we must add the new principle of semitone voice leading.[34] Bailey, in his discussion of Wagner's Tristan, considers the significance of this technique:

> Except at moments of harmonic stability, which always--but not exclusively--occur at points of structural articulation, linear considerations (with either diatonic or semitone voice leading, or both in alternation) more and more take precedence over harmonic ones.[35]

This principle underlies the following events which are "central hallmarks of the new system and work in an absolutely consistent and logical way with semitone voice leading":

1) the substitution for each other of major and minor forms of a triad;

2) the resolution of a dominant seventh as an augmented sixth chord;

3) the resolution of a dominant seventh to VI, as in a deceptive cadence; and

4) the displacement of the fifth of a chord by the sixth, which is sometimes expressed by a simultaneous statement of both.[36]

The prominence of such semitone voice-leading progressions contributes to the undermining of the structural polarity of tonic and dominant, and thus to the development of the "new system with polarities based on the interval of a 3rd."[37]

In summary, a distinction can be made between the generation of chromaticism in classical diatonic tonality and that in 19th-century chromatic tonality. In the former, chromaticisms, including chromatic chords such as the Neapolitan sixth and augmented sixth, derive from the processes of mixture or tonicization (or a combination of the two), and function at the foreground as elaborations of a diatonic framework. Schenker himself discusses the use of mixture at the middleground level;[38] tonicization, however, is treated only as a foreground operation.

In 19th-century chromatic tonality, the chromaticisms derive not only from mixture and tonicization, but also from the chromatic scale as the source of all tonal material, including background structural events. As the new semitone voice-leading principle became more prominent in progressions which superseded the tonic-dominant polarity of classical tonality, composers sought other structural possibilities, such as symmetrical divisions of the octave, and third-related chains

of keys. The chromaticisms in 19th-century chromatic tonality permeate not only the foreground, but also, necessarily, the middleground and background levels of composition.

It is in the analysis of music which is not clearly tonal in--either the classical diatonic, or the 19th-century chromatic sense, that the generation of chromaticisms becomes most problematic. Since tonicization and mixture operate in both languages, the focus is not entirely the processes from which the chromaticisms are derived, but rather the level at which the chromaticisms operate. In music of the transitional period, the middleground level becomes more highly chromatic, yet the voice-leading principles are often those of common-practice tonality.

A comprehensive study of Berg's Sieben Frühe Lieder results in the natural grouping of the songs into three main categories, which relate to the compositional chronology suggested above. The musical language of group one, which comprises "Im Zimmer" and "Nachtigall," relies almost entirely upon classical diatonic tonality as defined by Proctor; that is, the chromaticisms function as purely elaborative foreground events. In group two ("Sommertage" and "Schilflied"), the chromaticisms do not merely function as foreground elaborations (although they proliferate at that level), but are also present at the middleground level of composition. The music of "Traumgekrönt," "Liebesode," and "Nacht," which comprise our third group, exhibits characteristics of 19th-century chromatic tonality as defined by Proctor and Bailey. As we shall see in Chapter IV, certain aspects of Schoenberg's harmonic theories, and in particular his discussion of the

chromatic scale as a basis for tonality,[39] also are relevant to the analysis of the songs in group three.

The application of Schenkerian analytical techniques to twentieth-century music is still a controversial issue. Felix Salzer[40] and Roy Travis[41] were among the first to approach the subject, and were initially met with some hostility.[42] It is well known that Schenker "valued most highly those compositions whose structures conform to the principles of tonal organization set forth in his Der Freie Satz and other writings."[43] He found the organic structural coherence manifested by this "tonal" music to be "lacking in contemporary music, which for him (as is well known) meant anything after Brahms."[44] It is, however, becoming more widely accepted that linear analysis of post-common-practice music can yield valuable insights.

There is no question that a linear analysis of Berg's Sieben Frühe Lieder results in a better understanding of the music. The songs which comprise group one ("Im Zimmer" and "Nachtigall") conform to diatonic models at all levels, and are therefore representative of the very music from which Schenker derived his theories. Although the musical language of "Sommertage" and "Schilflied" (group two) is more highly chromatic, and therefore arguably "non-Schenkerian," our understanding of it is increased through the process of reductive analysis, since a diatonic background can be adduced as the organic structural framework which supports the complex foreground events. The application of reductive analysis to the songs which comprise group three ("Traumgekrönt," "Liebesode," and "Nacht") is more problematic, since there is no sense in which a diatonic Ursatz functions as the organic

structure upon which the tonal coherence of the music rests. The music of "Nacht" in particular does not easily lend itself to reductive analysis, but linear analysis does provide some valuable insights into the chromatic tonal language of "Traumgekrönt" and "Liebesode."

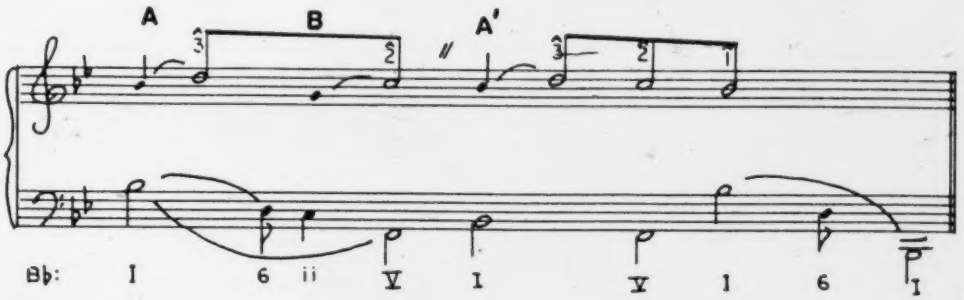
One might speculate about the reasons for the popularity of Berg's music in comparison to that of his contemporaries Schoenberg and Webern. If we can assume a direct relationship between popularity and familiarity, the degree to which Berg's music adheres to traditional practices may provide a partial explanation. That adherence is often discussed informally with reference to vague general characteristics such as "lyricism."[45] The discussion which follows--dealing specifically with the changing role of chromaticism in common-practice and post-common-practice music--will elucidate the relationship between the two languages and shed at least some light on the reasons for Berg's relative acceptance by the public.

CHAPTER II

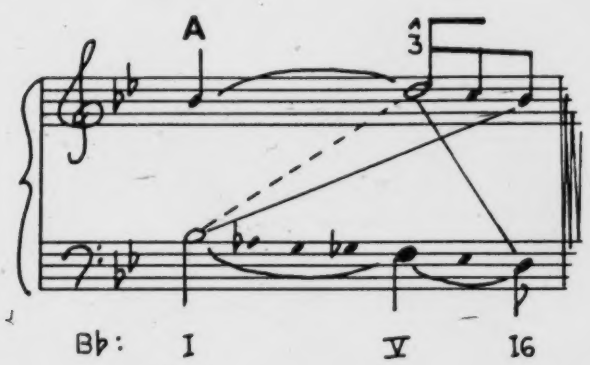
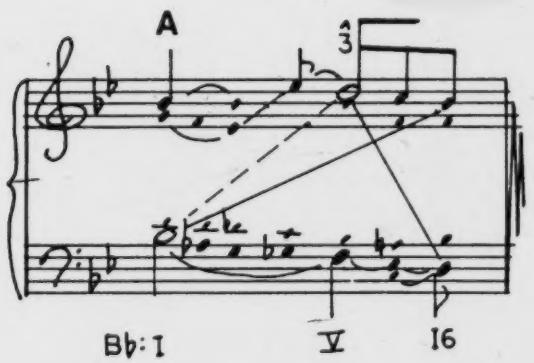
ANALYSIS OF "IM ZIMMER" AND "NACHTIGALL"

The musical language of Berg's "Im Zimmer" relies at all levels upon classical diatonic tonality as defined by Gregory Proctor. The background structure is an interrupted descent from the Kopfton $\hat{3}$ ($\underset{\text{I-V}}{\hat{3}\,\hat{2}}$ // $\underset{\text{I-V-I}}{\hat{3}\,\hat{2}\,\hat{1}}$) in B♭ major. An unusual feature of the foreground level is the avoidance of both tonic and dominant triads in root position--the root position tonic is clearly stated only at the end of the piece, and scale degree $\hat{2}$ in the Urlinie descent is nowhere harmonized by a root position dominant. It is necessary, therefore, to assume root position tonics where they are only implied, and to give structural significance to first inversion dominants. That these root position tonic and dominant sonorities are implied will be established in the course of this analysis. There is, of course, a precedent for the avoidance of root position tonics except at the final cadence--Chopin's Prelude in E minor, Op. 28/4, which is, coincidentally, also an interrupted descent (although from $\hat{5}$, not $\hat{3}$).

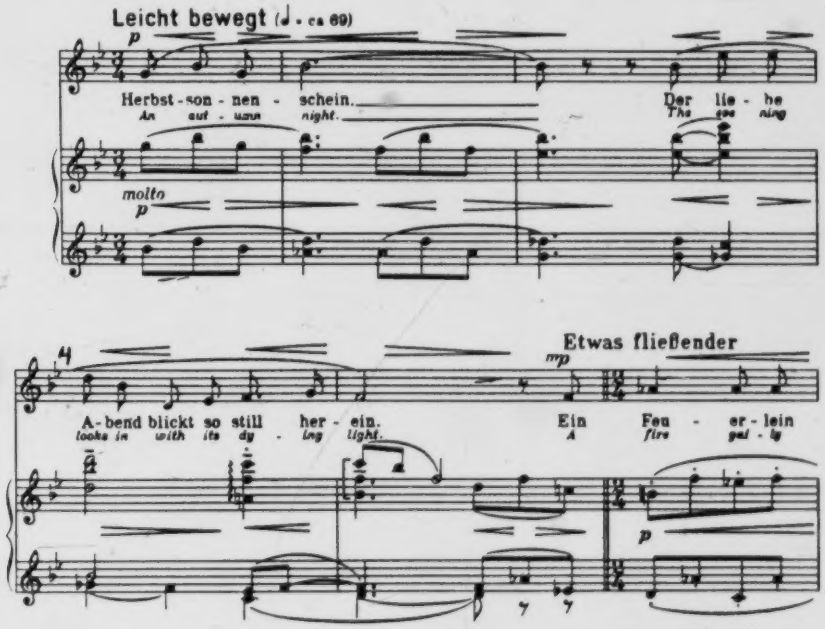
The interrupted Urlinie descent and the ternary melodic design (A B A') articulate the formal structure of the piece. The Kopfton $\underset{\text{I}}{\hat{3}}$, which is established in section A (mm. 1-5), descends, in section B (mm. 6-10) to $\underset{\text{V}}{\hat{2}}$, at which point the melodic descent is interrupted. Section A' articulates the re-establishment of the Kopfton and the ensuing descent through $\underset{\text{V}}{\hat{2}}$ to $\underset{\text{I}}{\hat{1}}$, followed by a codetta which prolongs the tonic harmony (see Example II-1).

Example II-1: Background of "Im Zimmer"

At the middleground level of Section A, the tonic is prolonged through a voice exchange, effected by the progression $\hat{3}\,\hat{2}\,\hat{1}$ (I-V-16). The movement from I to V is elaborated by chromatic passing notes in the bass between B♭ and F (A♭-G-G♭), and the movement from V to 16, by the passing note E♭ between F and D (see Example II-2).

The chromatic passing notes between I and V are harmonized at the foreground level. The opening B♭ tonic triad is followed by a B♭ major-minor seventh chord in third inversion (V^4_2 of IV), which resolves, as though part of a chain of dominants, to an E♭ major-minor seventh chord in first inversion (V^6_5 of ♭VII). The E♭ $^6_5$ chord is followed by a ii$^{\phi 4}_3$ of B♭ which in turn progresses to V. The dominant is embellished by a $^{6-5}_{4-3}$ displacement, under which the bass moves to E♭, and the V^4_2 so created forces resolution to 16 (see Example II-3).

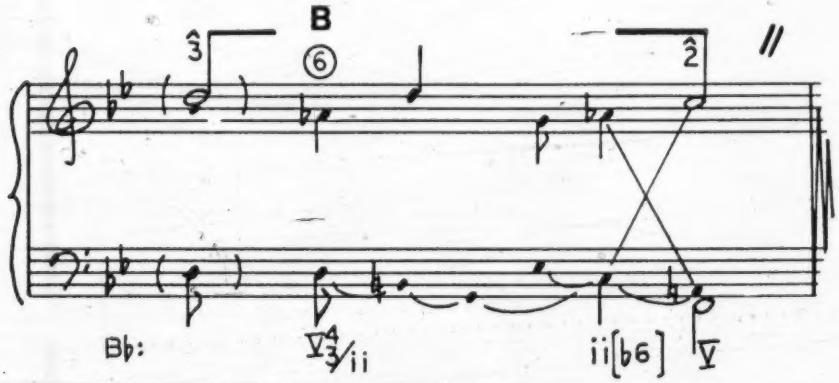
Example II-2: Middleground of "Im Zimmer," Section A.

Example II-3: Foreground of "Im Zimmer," Section A.

Berg's avoidance of clearly defined root position tonic triads affects the foreground as early as the opening tonic sonority, which contains the displacement of the fifth (F) by the sixth (G). The G resolves to F only after the harmony has already changed--the vocal

line articulates the resolution from G to F as the dominant resolves to I6 in m. 5 (see Example II-4).

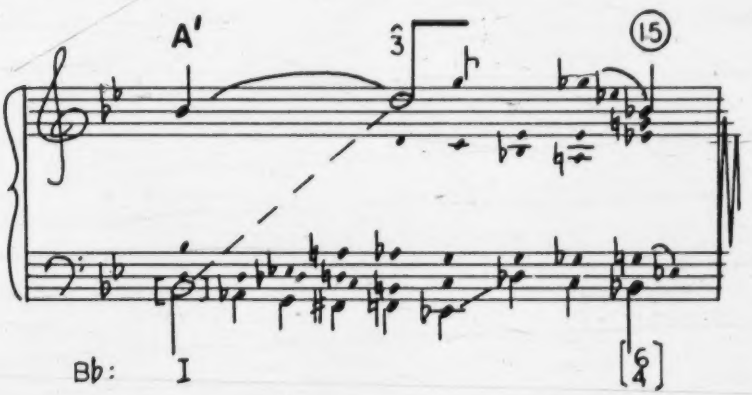
Example II-4: Piano Vocal Score of "Im Zimmer," mm. 1-5.

Berg also avoids root position dominants in the harmonization of scale degree $\hat{2}$ in both the interrupted and completed Urlinie descents. The goal of section B is a sonority which functions as the structural dominant of the interrupted descent. The sonority (A-C-E♭-G♭), a diminished seventh chord, functions as a dominant ninth without the root. That Berg himself would consider the diminished seventh chord to be a substitute for the dominant ninth is without question. Indeed, his teacher, Schoenberg, addresses the technique at some length in both Harmonielehre[1] and Structural Functions of Harmony:

> Registering every diminished seventh chord as a ninth chord on II (or V, or any other degree), root omitted, prevents it being used as a "Jack-of-all-trades" and enforces consciousness of the structural functions of root progressions.[2]

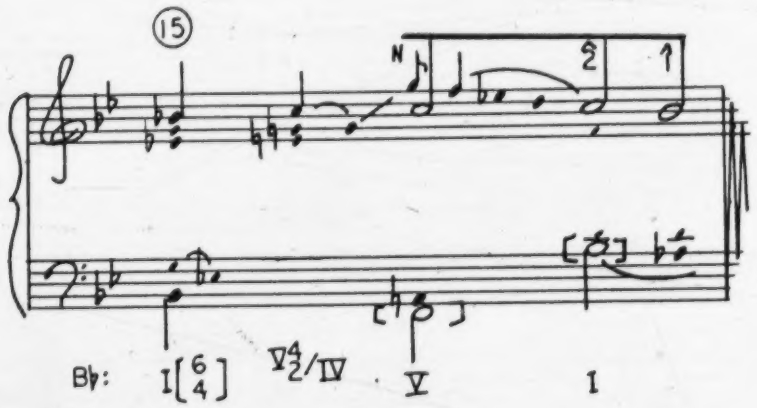
This dominant-function sonority is approached by the tonicized supertonic--section B begins on a third-inversion dominant ninth of C minor (ii) which resolves to i6 followed by i of C with a ♭6 displacement (A♭) of the fifth (G). The C and A♭ of the ii [♭6] are then chromatically exchanged with the A♮ and C of the following dominant sonority (see Example II-5).

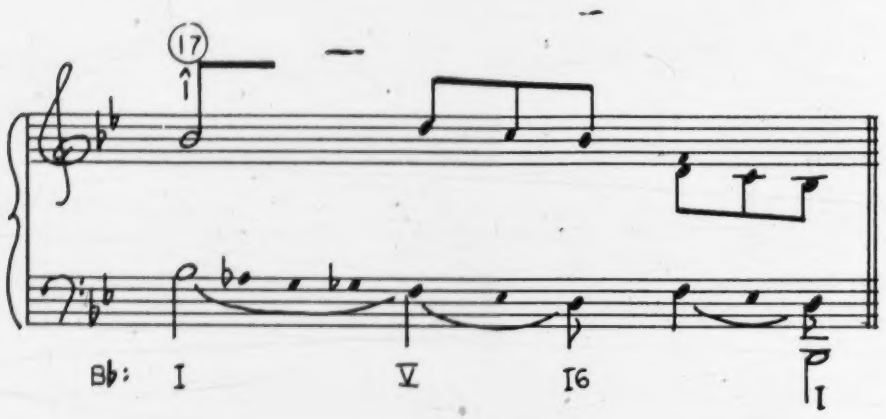
Example II-5: Middleground of "Im Zimmer," Section B.

The third section (A') is a varied restatement of the first. Berg avoids the opening root position tonic (with the 6-5 displacement) by beginning, rather, on the B♭ $\frac{4}{2}$ sonority (the second chord of section A). Since this B♭ $\frac{4}{2}$ has already been heard, in the same thematic context, as a passing chord from the root position tonic, it is possible to understand an implication of

the tonic at the beginning of section A' (see Example II-6). The restatement is also altered to avoid the $\hat{3}\ \hat{2}\ \hat{1}$ Zug harmonized by I-V-I6. This voice exchange is replaced by a prolonged $\hat{3}$ supported by an implied root position tonic. The bass line, which comprises a literal repetition of the descent (in the first section) from the implied B♭ to F, continues to B♭. The goal of the passage is a chord on B♭ with an unresolved $\frac{6}{4}$ displacement. The tonic, therefore, which was only implied at the beginning of section A', is still not clearly defined as a root position $\frac{5}{3}$ sonority (see Example II-6).

Example II-6: Foreground of "Im Zimmer," mm. 11-15.

As we have already observed, scale degree $\hat{2}$ in the completed descent is not harmonized by a root position dominant; rather, the structural dominant is a first inversion triad. The resolution of this dominant to the final tonic is especially interesting because it requires the acceptance not only of a first inversion triad as a

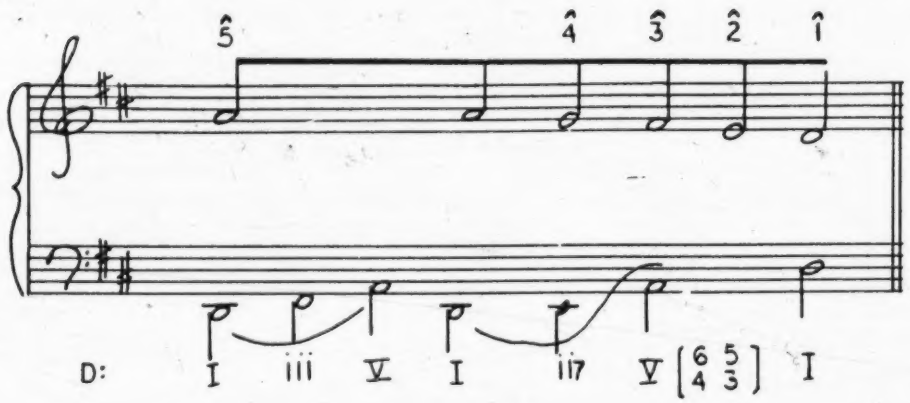
structural dominant, but also of its resolution to an implied root position tonic. The first inversion dominant "resolves" to a B♭ $\frac{4}{2}$ sonority, which marks the return, once more, of the material from A. The A material is altered, as it was in the restatement, to begin on the B♭ $\frac{4}{2}$ sonority (the second chord of section A), and the root position tonic is implied as the chord from which this B♭ $\frac{4}{2}$ passing sonority arises (see Example II-7).

Example II-7: Foreground of "Im Zimmer," mm. 15-17.

The return of the A material at the completion of the Urlinie descent marks the beginning of a codetta, which prolongs the tonic through a repetition of the $\frac{\hat{3}\ \hat{2}\ \hat{1}}{\text{I-V-I6}}$ voice exchange. The Zug is then repeated, and the descent from F through E♭ to D occurs in an inner voice while the bass strongly emphasizes the root of the tonic. The last sonority (a B♭ $\frac{5}{3}$ chord) is the only statement of a root position tonic in the piece (see Example II-8).

Example II-8: Middleground of "Im Zimmer," codetta.

The musical language of Berg's "Im Zimmer" conforms almost entirely to conventional common-practice voice-leading models at all levels of the piece. The occasionally unconventional voice-leading progressions, which are a feature of the foreground level alone, comprise the avoidance of root position tonic and dominant chords in the harmonization of the Urlinie descent.

The voice-leading structure of "Nachtigall," like that of "Im Zimmer," conforms to Schenkerian diatonic models at all levels. The Ursatz comprises a prolongation of scale degree $\hat{5}$ (A) supported by the progression I-iii-V-I in D major, followed by an Urlinie descent harmonized by I-ii7-V-I (see Example II-9).

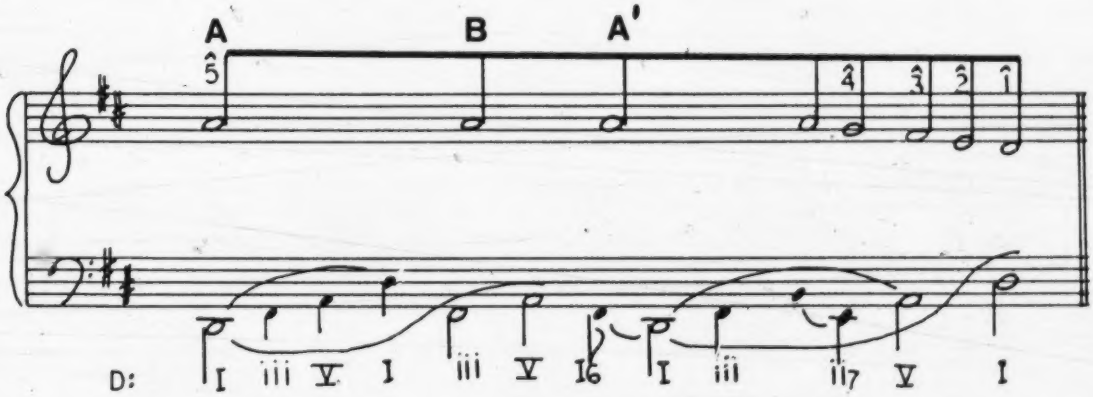
The form of the piece is ternary--section A prolongs the tonic, section B articulates the progression from iii to V, and section A' re-establishes the tonic harmony and encompasses the structural Urlinie descent.

Example II-9: Ursatz of "Nachtigall."

An important tenet of Schenkerian theory is that "Musical coherence can be achieved only through the fundamental structure in the background and its transformations in the middleground and foreground."[3] Schenker discusses this principle in Der Freie Satz:

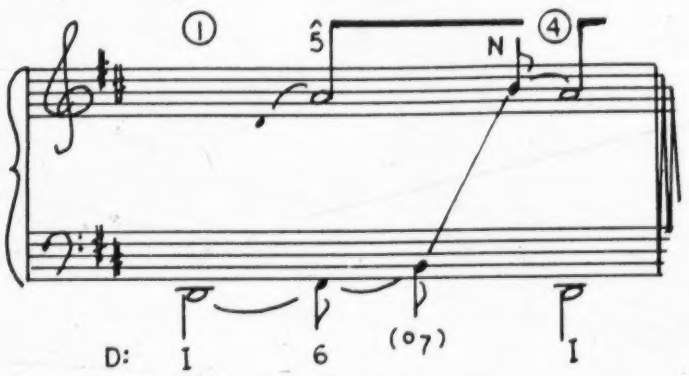
> . . . in a composition, a limb which was not somehow born with the middle and background cannot grow to be a diminution. Hugo von Hofmannsthal has found ingenious words for this: "One must conceal the depths. Where? On the surface." And: "No part of the surface of a figure can be formed except from the innermost outward."[4]

The most prominent gesture which operates at different levels throughout Berg's "Nachtigall" is the third divider between I and V. As we have already observed, the arpeggiation from I through iii to V is strongly articulated as the tonal design of the first two sections--section A prolongs I and section B progresses from iii to V. At the background level, this gesture is anticipated by the prolongation of the tonic in section A through the progression I-iii-V-I. The third

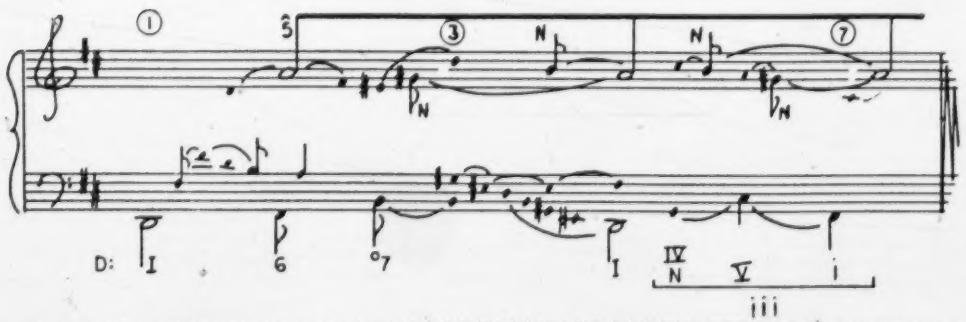
scale degree also functions as a divider between V and I in a descending arpeggiation from A through F♯ to D. The dominant which is established at the end of section B does not resolve directly to I at the beginning of the restatement, but rather resolves first to I6 and then to I. The bass, therefore, arpeggiates the tonic triad in descending motion (A-F♯-D) (see Example II-10).

Example II-10: Background of "Nachtigall."

The arpeggiation of the tonic triad also permeates the middleground and foreground levels. In mm. 1-4 the tonic is prolonged through the progression I-I6-°7-I. The motion in the bass (which supports this progression) from D through F♯ to B is then transferred to the upper voice in which the B resolves as a neighbour to A (see Example II-11). This middleground event is anticipated in mm. 1-2, at the foreground level, by a statement of the same melodic gesture (D-F♯-B-A) in an inner voice (see Example II-12). Another significant

Example II-11: Middleground of "Nachtigall," mm. 1-4.

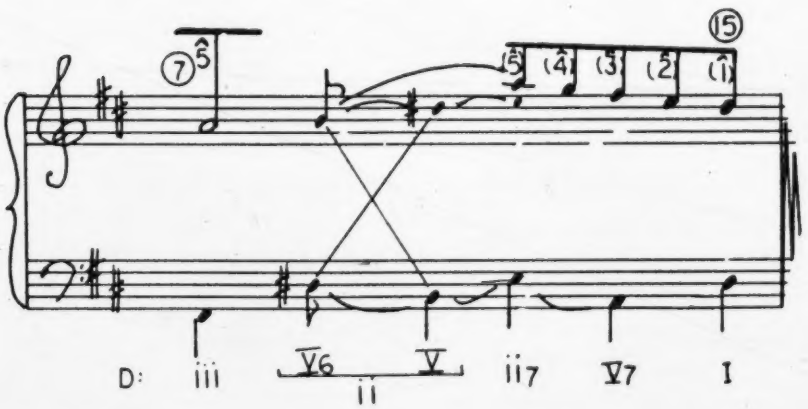


foreground event is the harmonization of the B in mm. 2-3 by a diminished seventh chord which embellishes the tonic--the D is a common tone, the E♯ and G♯ are microtonicizations of F♯ and A respectively, and the B is a diatonic upper neighbour to A. It is interesting to

Example II-12: Foreground of "Nachtigall," mm. 1-7.

note that this diminished seventh chord is also vii° 7 of F♯ (iii), which is tonicized in the ensuing passage--following the tonic chord in m. 4 is the progression N-V-i in F♯ minor (see Example II-12).

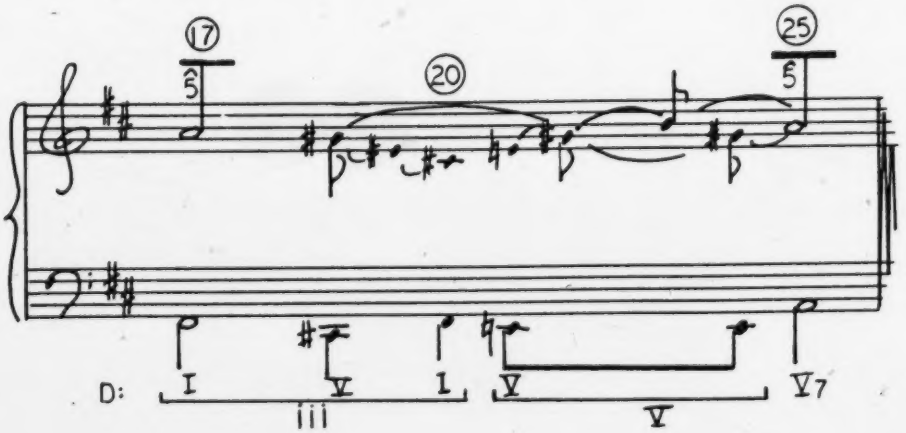
As we have already observed, the mediant which is tonicized in mm. 5-7 functions as a divider between the tonic established in mm. 1-4 and the dominant of the cadence at the end of section A. At the middle and foreground levels, this cadence supports a Zug from $\hat{5}$, which is harmonized by the progression ii7-V7-I. The predominant ii is tonicized--V7 of ii is prolonged through a voice exchange involving $\hat{6}$ (B) which is again heard as a neighbour to the Kopfton $\hat{5}$ (A) (see Example II-13).

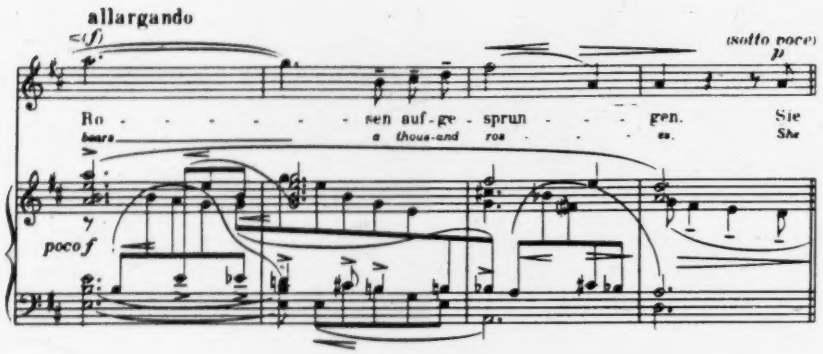
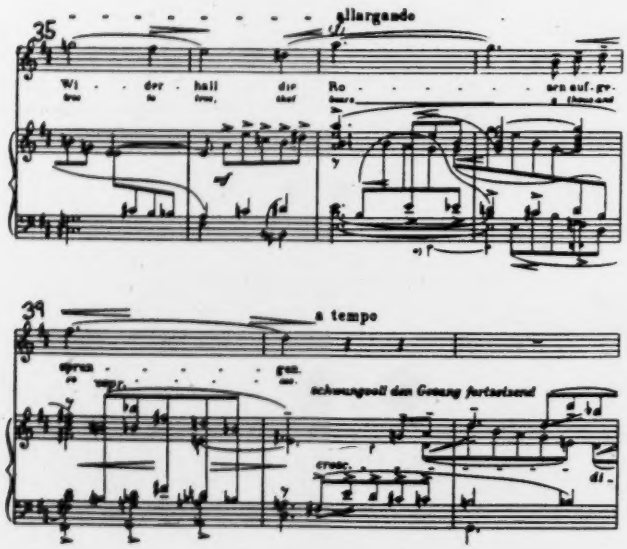
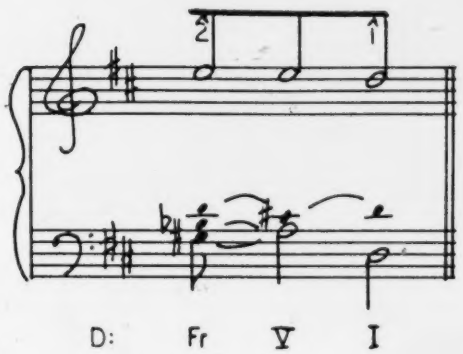
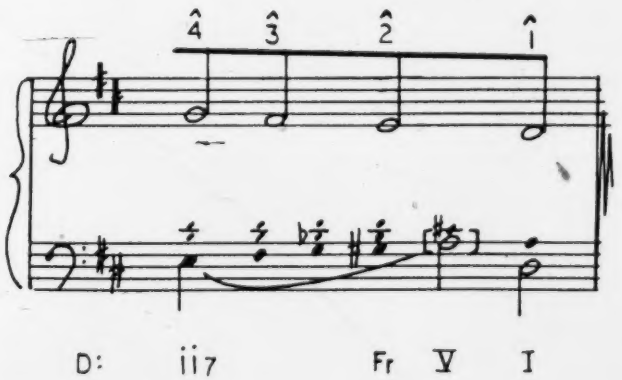
Example II-13: Middleground of "Nachtigall," mm. 7-15.

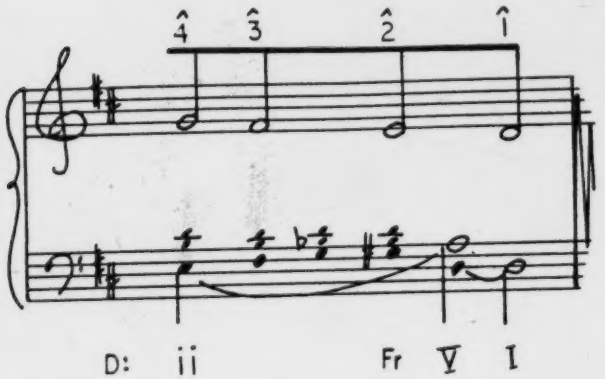


Throughout the first section, the Kopfton $\hat{5}$ is prolonged by its upper and lower neighbours: in mm. 3-4, B and G♯, harmonized by an embellishing diminished seventh chord, resolve to A as the fifth of the tonic triad; in mm. 5-7, B and G♯, this time harmonized by N-V in F♯, resolve to A as the third of an F♯ minor triad; and in mm. 9-12, B, harmonized by V7 of ii, falls to A as the seventh of the dominant of ii, which then initiates the Zug from $\hat{5}$ (A).

Throughout section B, the Kopfton is again prolonged by its lower chromatic neighbour G♯ and its upper neighbour B. The G♯ is harmonized first by the dominant of F♯ (iii), and is itself prolonged through a descending arpeggiation of the C♯ major triad. Following the resolution of the dominant of F♯ to i, the dominant of A is established. The G♯ is then heard as the third of an ascending arpeggiation of the dominant of A (E-G♯-B), and the G♯ and B resolve to A as the root of the dominant seventh in D major (see Example II-14).

Example II-14: Middleground of "Nachtigall," mm. 16-25.

Section A' is a literal restatement of the first section with a few exceptions: the beginning is altered, as we have already observed, to avoid the initial root position tonic; the structural dominant which supports $\hat{3}$ and $\hat{2}$ in the Urlinie decent is not stated at the foreground; and a piano postlude prolongs the tonic harmony. Attention must be drawn to the structural dominant of the final cadence which is only implied at the foreground level. The cadence is approached (as it was in the first section) from ii7, but the dominant (A) in the bass is replaced by passing motion from the E of ii7 through F♯ and G to A♭. The sonorities that harmonize the bass line are mostly non-functional--a B minor $\frac{6}{4}$, a G minor $\frac{6}{4}$, and a French sixth in D (B♭-D-E-G♯) with G♯ (A♭) in the bass. The cadence from the close of section A and the final cadence are shown in Examples II-15a and II-15b. Although the French sixth is directly followed by the tonic chord, its resolution to the dominant is implicit in the voice leading. The G♯ and B♭ both resolve to A, which is the root of the dominant and the fifth of the tonic simultaneously. The overlapping of the dominant and tonic sonorities is also implied by the suspension of the structural $\hat{2}$ (E) over the D major chord. The model from which this voice-leading progression derives is shown in Example II-15c, Example II-15d is a sketch of the passage showing the implied dominant, and the sketch in Example II-15e demonstrates the tonal displacements.

Example II-15a: Piano-Vocal Score of "Nachtigall," mm. 12-15.

Example II-15b: Piano-Vocal Score of "Nachtigall," mm. 37-40.

Example II-15c: Harmonic Model of Final Cadence.

Example II-15d: Foreground of "Nachtigall," Final Cadence.

Example II-15e: Foreground of "Nachtigall," Final Cadence.



The voice-leading progressions throughout "Nachtigall" are founded upon classical diatonic models with the single exception of the avoidance of a clearly stated root position dominant at the final cadence. The musical coherence is achieved through the recurrence of certain gestures at different levels throughout the piece--the third divider between I and V, and the upper and lower neighbours B and G♯ to the Kopfton $\hat{5}$ (A).

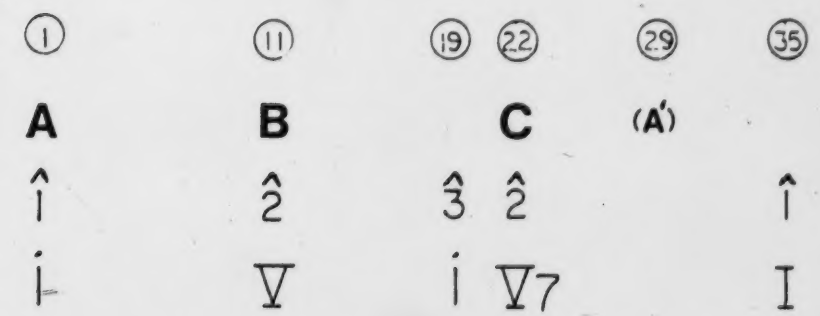
CHAPTER III

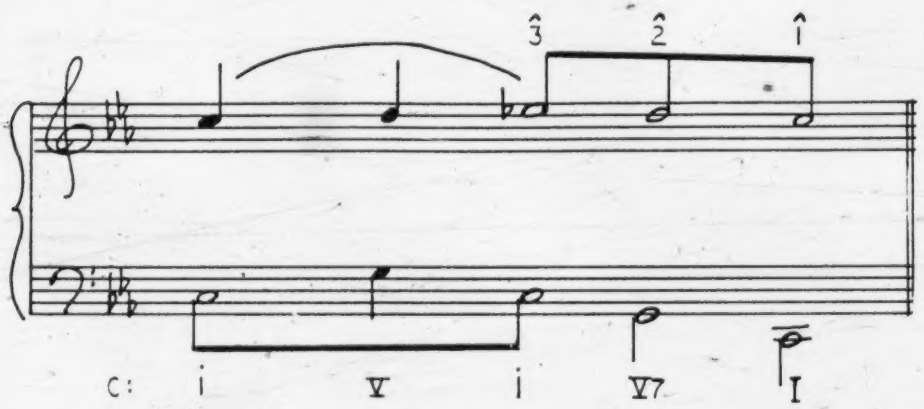
ANALYSIS OF "SOMMERTAGE" AND "SCHILFLIED"

The musical language of Berg's "Sommertage" relies upon common-practice voice-leading techniques at all levels, although the background diatonic structure is disguised at the surface of the music by the proliferation of chromaticisms.

The piece is in three sections, created by the clearly divided vocal phrases and the background tonal structure which comprises a conventional $\underset{\text{i-V-I}}{\hat{3}\,\hat{2}\,\hat{1}}$ descent in C minor. The first two sections (A and B) encompass the Anstieg to the Kopfton $\hat{3}$, and the third section (C) includes the descent from $\hat{2}$ to $\hat{1}$ (see Example III-1).

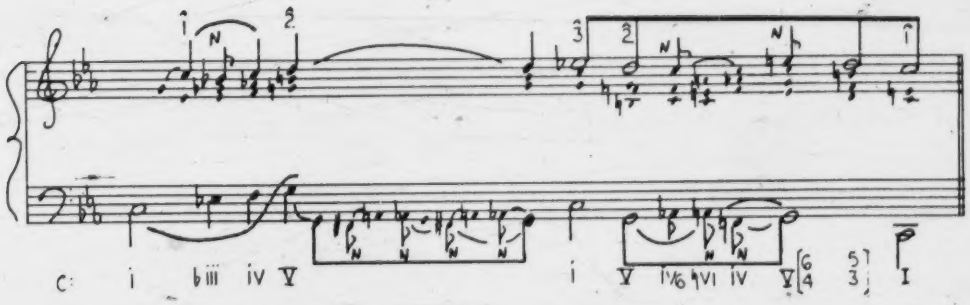
Example III-1a: Tonal Design of "Sommertage."

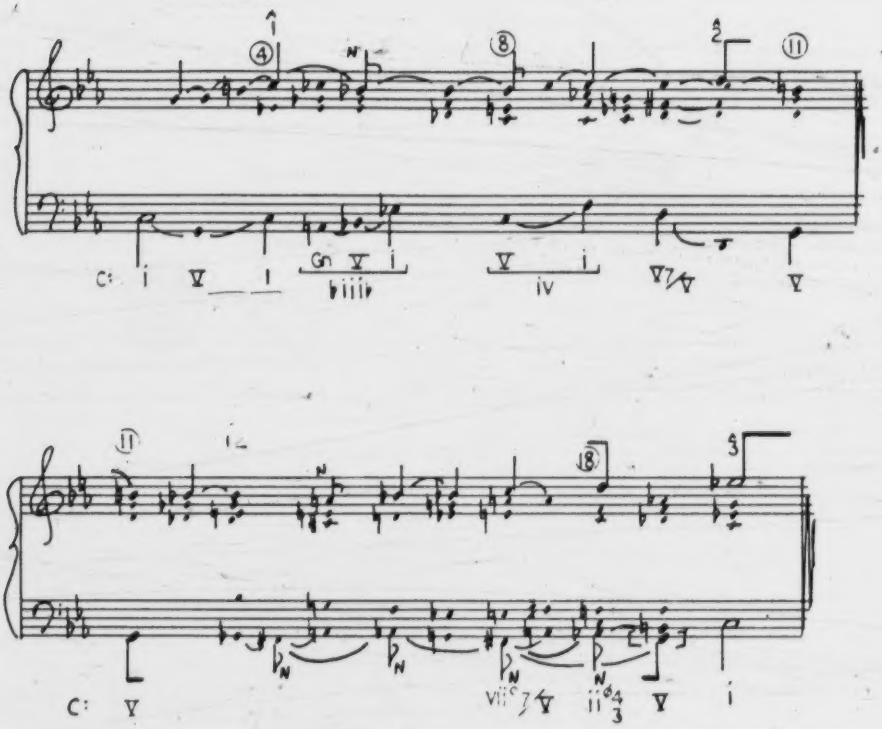


Example III-1b: Background of "Sommertage."

A transposed version of the melodic material from A returns in section C (m. 29), and although it is possible to hear a melodic division at this point, there is no concurrent harmonic division to articulate the beginning of a new section.

At the deep middleground level, the Anstieg is elaborated--the ascent from scale degree $\hat{1}$ (C) to $\hat{2}$ (D) is harmonized by the progression i-♭iii-iv-V, and the dominant that supports $\hat{2}$ is elaborated by chromatic lower and upper neighbours (F♯ and A♭). The E♭ minor triad (♭iii) is derived from secondary mixture; that is, the G♭ derives from the parallel minor mode of the diatonic mediant (E♭ major) of C minor. In the $\hat{3}$ $\hat{2}$ $\hat{1}$ Urlinie descent, V is elaborated by upper and lower neighbours to both the bass and soprano (A and F to the bass note G, C and E to the soprano note D). Modal mixture is used frequently to produce chromatic relations throughout this level--although the minor mode of C is more prominent in "Sommertage," the

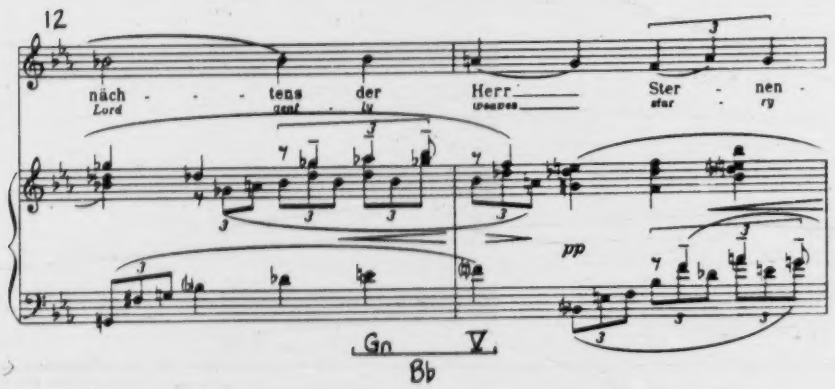
major mode is represented by the vi which harmonizes the A neighbour to G, and the E♮ $\hat{3}$ which is a neighbour to $\hat{2}$ in the final descent. The dominant at the beginning of section C (m. 22) resolves through iv6 to vi--the A♭ or G♯ of iv6 can be heard as a microtonicization of A, and the F, which is heard first as the seventh of V7 and then as the root of iv6, resolves down to E. Following the tonicization of vi, iv is prolonged as an approach to the final V-I cadence in C (see Example III-2).

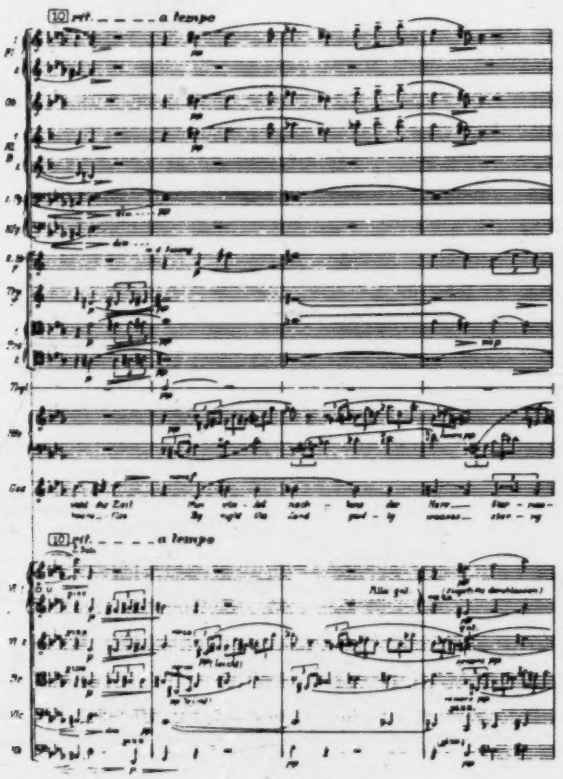
Example III-2: Deep Middleground of "Sommertage."

The next middleground level further elaborates, by application of secondary dominants, the Anstieg progression i-♭iii-iv-V. An extended prolongation of the dominant begins in m. 11, as scale degree $\hat{2}$ is prolonged through the consonant skip to B and the ensuing melodic motion--B♭-A-B♭-C-D (see Example III-3).

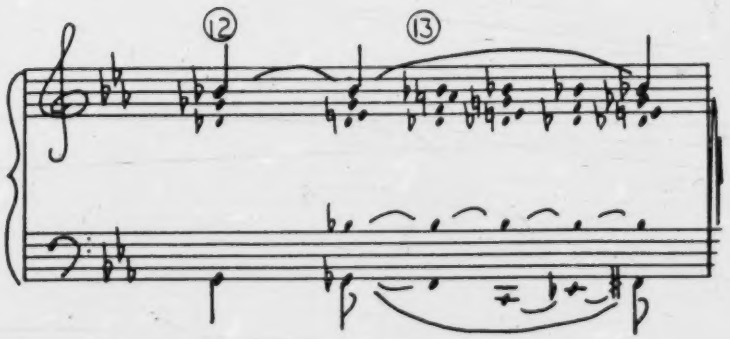
Example III-3: Middleground of "Sommertage," mm. 1-19.

Attention must be drawn to the "German sixth" sonority which harmonizes the melodic pitch B♭ in m. 12. A transposed version of the German sixth and the thematic material it supports was heard in mm. 4-6-- the tonic C minor triad was followed by a German sixth chord of E♭ which resolved in that key. In m. 12, we therefore expect the German sixth to effect a similar motion up a minor third from I in G to I in B♭. Because of significant differences between the orchestral

and piano-vocal scores, however, there are two possible interpretations of the resolution of this German sixth. In the piano-vocal version, the progression from the augmented sixth to V to i in B♭ is clear (see Example III-4a). The orchestral bass line, however, contradicts this interpretation. The augmented sixth resolves (as in the piano-vocal version) to the dominant of B♭. The ensuing melodic motion--C-E♭-F♯ -- does not allow for the resolution of the dominant to a B♭ tonic triad. The F♯ (G♭) in the bass marks the return to the German sixth sonority of m. 12--F♯ (G♭)-B♭-D♭-E. Perhaps, then, the entire passage should be understood as a prolongation of this sonority (see Example III-4).

Example III-4a: Piano-Vocal Score of "Sommertage," mm. 12-13.



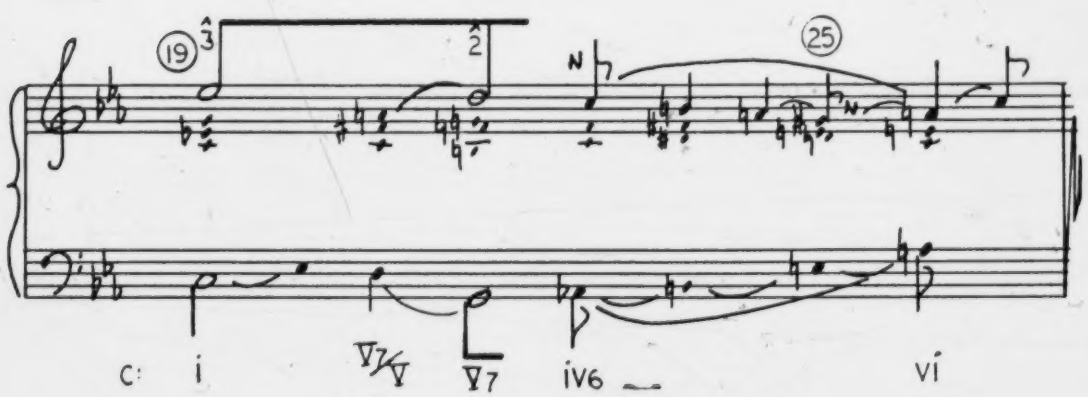
Example III-4b: Orchestral Score of "Sommertage," mm. 12-13.

Example III-4c: Foreground of Orchestral Version, mm. 12-13.



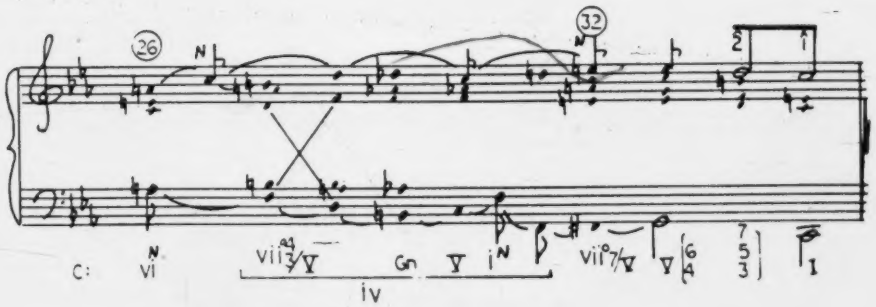
The prolonged German sixth of mm. 12-13 progresses to a major-minor seventh chord on A, a progression that is not functional, but rather derives from post-common-practice voice-leading techniques. The C♯ (D♭) and E are common to both the G♭-B♭-D♭-E and A-C♯-E-G sonorities, and the other voices move by step. The A7 chord is followed by a B♭ $\frac{4}{2}$ chord, a progression reminiscent of the so-called deceptive resolution of V7 to flat VI. The B♭ $\frac{4}{2}$ then resolves conventionally as V^4_2 to I6 in E♭. Although it is possible to find such functional relationships between adjacent harmonies in this chord succession, the progression as a whole cannot be considered functional in C minor. It is important to remember that the harmony at the background and deep middleground levels of mm. 11-18 is the dominant of C, prolonged through a repeated four-note pattern (F♯-A-A♭-G) which emphasizes the lower and upper chromatic neighbours (F♯ and A♭) to G. At the middleground and foreground levels, however, the first statement of the pattern is harmonized by non-diatonic, non-functional harmonies which digress from the prolonged dominant of C. In the repetition, the harmonies are functional in C--vii°7 of V followed by ii$^{\emptyset}$ $\frac{4}{3}$ which leads to a chord in m. 18 that functions as a dominant substitute (B-D♭-F-A♭). In Structural Functions of Harmony, Schoenberg describes this sonority as $V_{\flat 5}^{9}$ with the root omitted, the implied spelling of which would be G-B-D♭-F-A♭[1] (see again Example III-3).

After the Kopfton $\hat{3}$ is established in m. 19, it descends immediately to the structural $\hat{2}$ supported by the dominant. As we have

already observed, the dominant is prolonged, through a deceptive resolution, by double neighbours in both the bass and soprano voices. A tonicization of A minor (vi) further reinforces the function of iv6 as an elaboration of vi--beginning with the A♭ (G♯) of the iv6 the bass line arpeggiates V of vi (E-G♯-B) in first inversion, which resolves to i of vi in m. 26 (see Example III-5).

Example III-5: Middleground of "Sommertage," mm. 19-26.

From the vi in m. 27, there is a descending arpeggiation of a half-diminished seventh chord in the bass--A-F-D-B--which functions in mm. 28-29 as vii$^{\emptyset}$7 of V resolving to a V-i cadence in F (IV of C). The overall movement in mm. 27-31, therefore, is from vi to iv in C. From the subdominant in m. 31 there is a cadential formula in C--vii^{o}7 of V resolving to V embellished by a cadential six-four, which then resolves to the tonic (see Example III-6).

Example III-6: Middleground of "Sommertage," mm. 26-35.

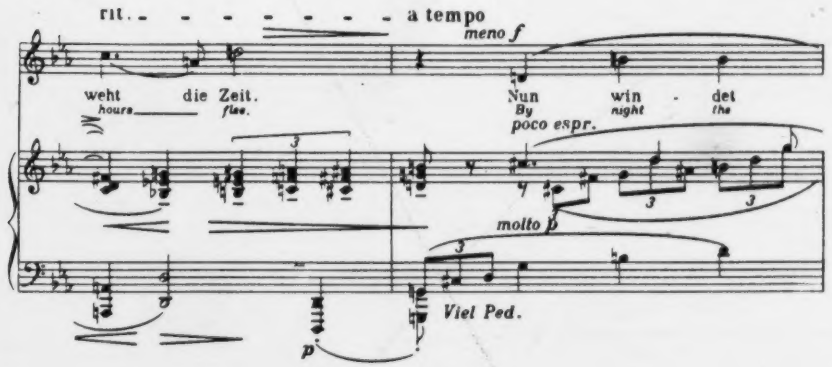


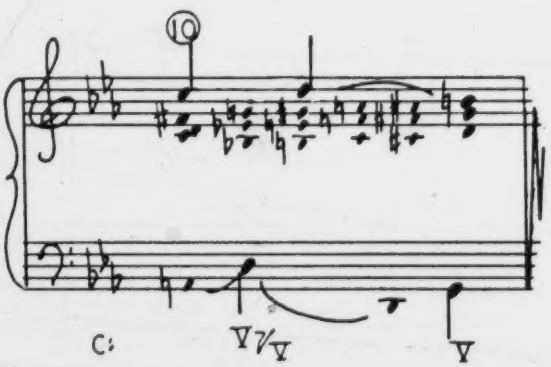
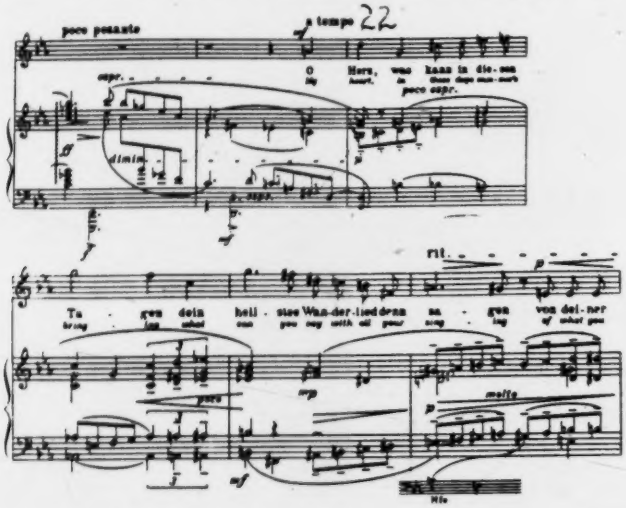
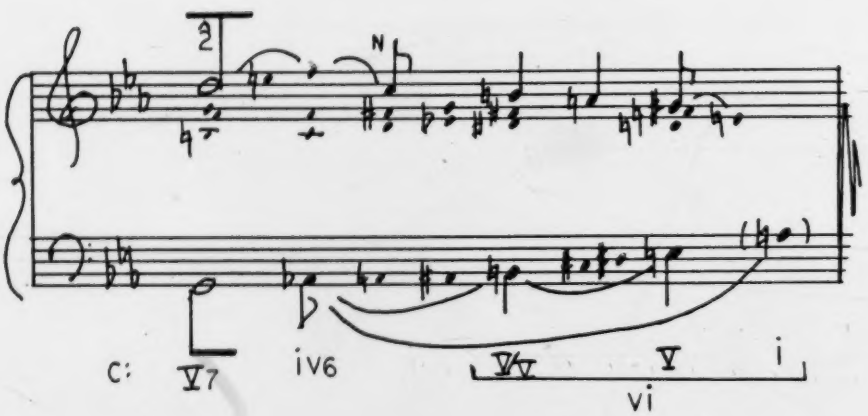
As we have already observed, the background and middleground levels of "Sommertage" are representative of classical diatonic tonality. The musical language at the foreground level, however, relies upon voice-leading techniques which, although not unconventional, can, if heard in great proliferation, veil the diatonic background. One such technique is the harmonization of chromatic passing tones by non-functional sonorities. In mm. 10-11, for example, the harmonic progression V7-I of V (G) is elaborated by chromatic passing chords between the dominant seventh and the tonic. The passage is further complicated by the displacement of voices to avoid a vertical statement of the dominant seventh in root position. On the downbeat of m. 10, V_3^4 of G is heard--the notes C-D-F♯ in the upper voices are supported by A in the bass. The A moves to D on the second beat,

which, if the upper voices (C-D-F♯) were held, would result in a root position dominant seventh of G. The upper voices, however, are displaced--the F♯ moves to G, the D to E♭ and the C to B♭. The result, in the upper voices, is an E♭ major chord in $\frac{6}{4}$ position. The D in the bass is prolonged for the rest of the measure, while the upper voices move upward chromatically maintaining the intervals of a major triad in $\frac{6}{4}$ position, from the E♭ $\frac{6}{4}$ triad on the downbeat of measure 11. The bass note D resolves to G simultaneously with the resolution to the G major triad in the upper voices. Clearly, the underlying progression in mm. 10-11 is V7-I in G, but the dominant seventh is never stated as a vertical sonority, and the chromatic voice leading in the upper voices results in a series of non-functional passing chords (see Example III-7).

Berg also uses passing chords in $\frac{6}{4}$ position to connect an F minor triad in first inversion and a B major-minor seventh chord (V7 of E) in mm. 23-24. These chords have a non-functional relationship; although they share the same goal (the A minor chord in m. 26), there is no conventional functional relationship which could be applied to them. The bass note A♭ which supports iv6 (m. 23), and the bass note B which supports V7 of E (m. 24) are connected by chromatic passing notes to form the bass line A♭-A-A♯-B. The A supports D and F♯ in the upper voices, and the A♯ (B♭) supports E♭ and G, both of which form non-functional second inversion major triads (see Example III-8).

Example III-7a: Piano-Vocal Score of "Sommertage," mm. 10-11.



Example III-7b: Foreground of "Sommertage," mm. 10-11.

Example III-8a: Piano-Vocal Score of "Sommertage," mm. 22-24.

Example III-8b: Foreground of "Sommertage," mm. 22-24.

A striking tonal feature of "Sommertage" is the prolongation of the dominant in both the Anstieg and the Urlinie descent. In the Anstieg, V is prolonged (mm. 11-18) through the harmonization of the chromatic bass line G-F♯-A-A♭-G-F♯-A-A♭-G by both non-functional and functional progressions. In the Urlinie descent, V is again

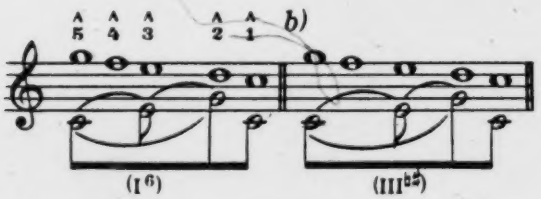
prolonged (mm. 22-34), this time by the neighbours F and A rather than F♯ and A♭. The harmonies that support the neighbour motion indicate the free use of modal mixture in this tonal language. The form of the submediant (A-C-E) derives from the C major scale, while the form of the subdominant (F-A♭-C) is from the C minor scale.

The music of "Sommertage" could not be considered to be representative of classical diatonic tonality, since purely embellishing chromaticisms function not only at the foreground, but also at the middleground level. The chromatic bass line, for example, which prolongs the dominant in mm. 11-18, is a deep middleground event. There is no question that the voice-leading models (at all levels of the piece) are, in themselves, conventional--the chromatic bass line which prolongs the dominant at the deep middleground derives from a common-practice voice-leading model, as does the chromatic bass line which is harmonized by non-functional passing sonorities at the foreground level. The question, rather, is that of the level at which the chromaticisms function. In the case of "Sommertage," the chromaticisms are not merely elaborations of the foreground, but of the middleground level of composition as well, and therefore begin to assume a structural, syntactic significance.

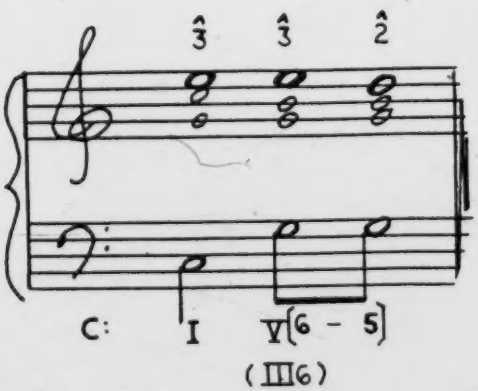
Berg's "Schilflied" depends almost entirely upon common-practice voice-leading techniques at all levels. The background, however, is not as representative of the common-practice Ursatz as is the background of "Sommertage." Scale degree $\hat{3}$ of the descent from $\hat{5}$ in F minor is harmonized by III6, and the structural dominant resolves "deceptively" to VI before proceeding to the tonic. The use of III to

support $\hat{3}$ in a descent from $\hat{5}$ is discussed by Schenker in Der Freie Satz.[2] In his examples, III is a divider between I and V (see Example III-9a). The use of III6, however, is unconventional, and is not given as a possible structure by Schenker. The first inversion mediant can not divide the space between I and V, since its bass note is the same as the root of V. In the progression I-III6-V, the III6 is heard not as a mediant, but rather as the dominant with an unresolved 6-5 displacement (see Example III-9b).

Example III-9a: Schenker's Figure 16-1 from Der Freie Satz.

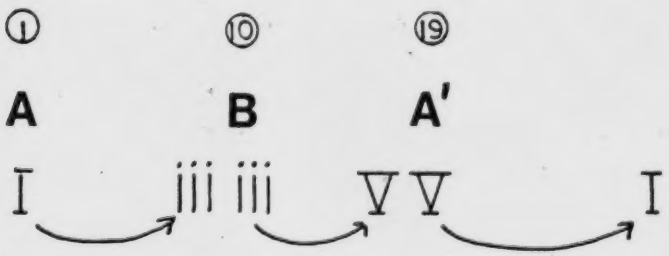


Example III-9b: The Progression I-III6-V.



The three-part formal structure is articulated by the ternary melodic design and the tonal structure. "Schilflied" most closely resembles Douglass Green's "continuous ternary form,"[3] in which the first two sections are harmonically open--section A progresses from i to III, section B from III to V, and section A' resolves the dominant to the conclusive tonic (see Example III-10).

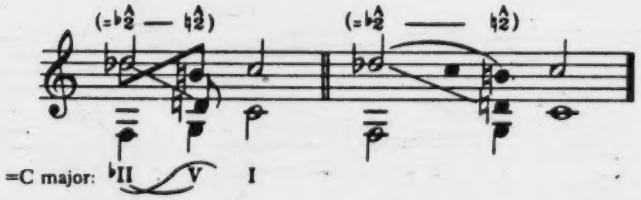
Example III-10: Tonal Design of "Schilflied."

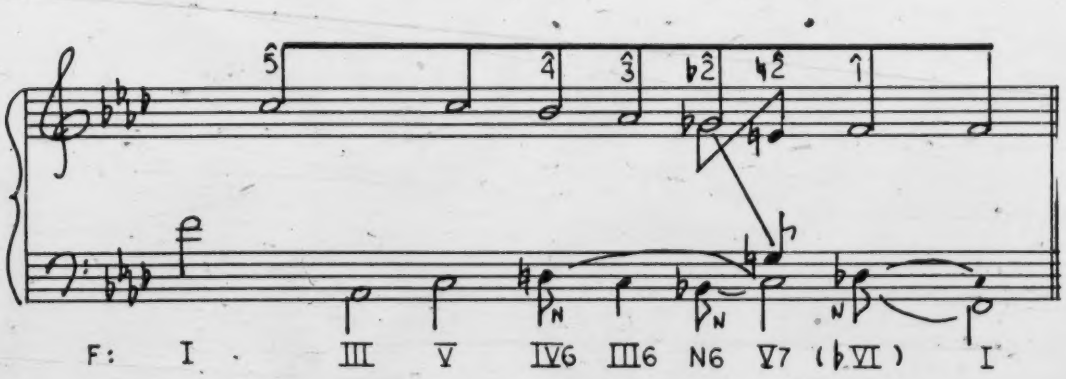


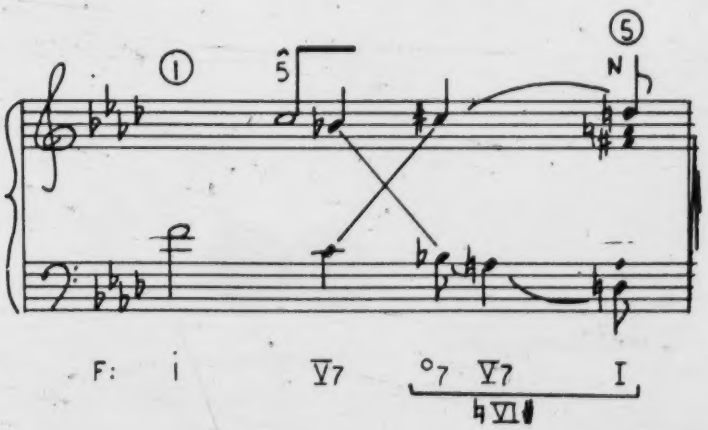
As we have observed, the harmonic support for the background $\hat{5}\ \hat{4}\ \hat{3}\ \hat{2}\ \hat{1}$ descent is founded upon some unconventional voice-leading progressions. The Kopfton $\hat{5}$ is supported conventionally by a bass arpeggiation from i through III to V. The dominant thus reached is then prolonged by its upper and lower neighbours D and B♭. The D supports scale degree $\hat{4}$ (B♭) in the Urlinie descent and the resulting harmony is IV6. From this first inversion B♭ triad a linear intervallic pattern $\binom{6\ 6\ 6}{3\ 3\ 3}$ leads through an A♭ $\frac{6}{3}$ chord (the III6 which supports $\hat{3}$) to a G♭ $\frac{6}{3}$ chord (the Neapolitan sixth) which

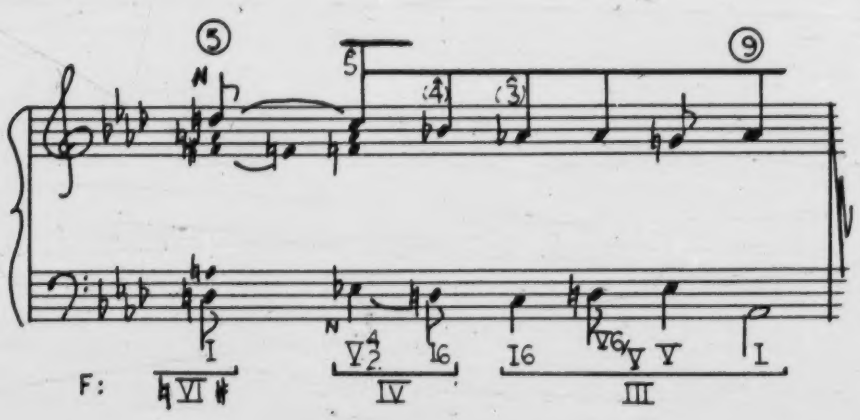
supports ♭$\hat{2}$. The dominant that follows from the Neapolitan sixth "rectifies" ♭$\hat{2}$ by ♮$\hat{2}$.[4] The G♭ in the melody (♭2) is followed immediately by E♮ supported by V7, and the G♮ (♮2) is heard in an inner voice. This voice-leading progression is shown in Example III-11, which is Schenker's Figure 74 in Der Freie Satz. The resolution of the dominant is "deceptive"; the C in the bass (V) resolves upwards by semitone to D♭ (♭VI) which then leads down to F (I) (see Example III-12).

Example III-11: Schenker's Figure 74 in Der Freie Satz.

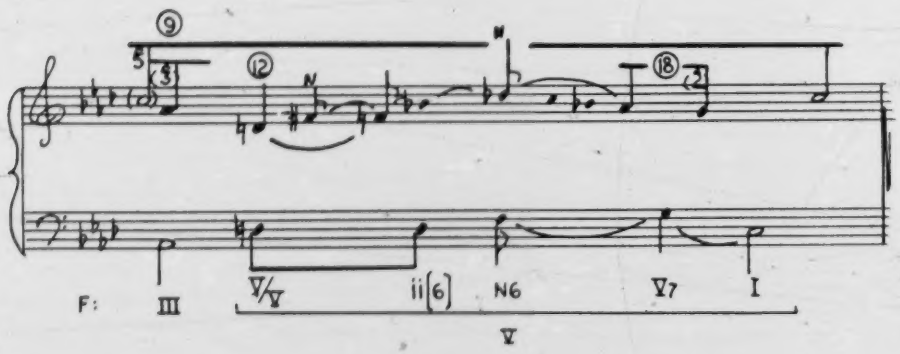


Example III-12: Background of "Schilflied."

Throughout sections A and B, the Kopfton (C) is prolonged, first by its upper neighbour D, and then through a $\hat{5}\ \hat{4}\ \hat{3}\ \hat{2}$ Zug, scale degree $\hat{2}$ of which is not reached until the end of section B. The D neighbour to $\hat{5}$ is harmonized by a form of the submediant which is derived from double mixture--the modally borrowed ♭vi of F (D-F-A) is itself altered, through modal mixture, to become a major triad (D-F♯-A). The D major chord (♭VI♯) is tonicized by its dominant which is itself approached from the dominant of F. In m. 3, V7 of F progresses, through a chromatic voice exchange, to a diminished seventh chord--the C and B♭ of V7/F are chromatically exchanged with the B♭ and C♯ of vii°$^{4}_{3}$/F. Although the diminished seventh is approached as vii°$^{4}_{3}$ of F, it is reinterpreted to resolve as vii°$^{4}_{2}$-V7-I in D (see Example III-13).

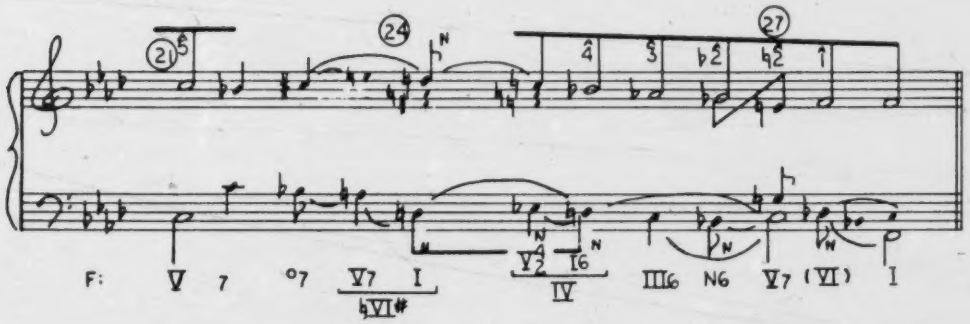
Example III-13: Middleground of "Schilflied," mm. 1-5.

The resolution of the neighbour D (which is supported by ♮VI♯) to the Kopfton (C) in m. 6 initiates the $\hat{5}\ \hat{4}\ \hat{3}\ \hat{2}$ Zug. The tonicization of D major is followed by one of IV--the F♯ of the D major triad falls to F♮ which becomes the root of a third inversion dominant seventh of B♭. That chord in turn resolves to I6 of B♭, and the resulting B♭ in the melody is $\hat{4}$ of the Zug. The tonicization of B♭ (IV) is followed by a prolongation of A♭ as III of F. Scale degree $\hat{3}$ of the Zug, therefore, is supported by a progression which tonicizes III. This root position mediant functions as a divider between the tonic established at the beginning of the piece and the dominant established at the end of section B (see Example III-14).

Example III-14: Middleground of "Schilflied," mm. 5-10.

Scale degree $\hat{3}$ of the Zug is prolonged throughout B, resolving to $\hat{2}$ supported by V of F at the end of that section. The dominant of F is itself tonicized through the conventional progression ii-V7-I. The

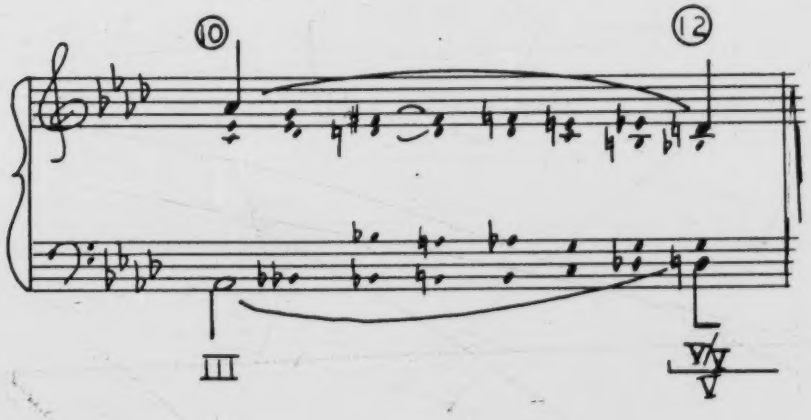
predominant (ii) is chromatically altered to be heard first as V7 of V, then as ii with an unresolved 6-5 displacement, and finally, through a chromatic voice exchange, as the Neapolitan sixth. The D♭ of the Neapolitan sixth then acts as a neighbour to the Kopfton $\hat{5}$ (C), resolving in m. 21. From the D♭, a melodic descent passes through the notes C and B♭ to A♭ (scale degree $\hat{3}$ of the Zug), which in turn descends to $\hat{2}$. Harmonic support for the $\hat{2}$ is provided first by V of C, then by I of C (see Example III-15).

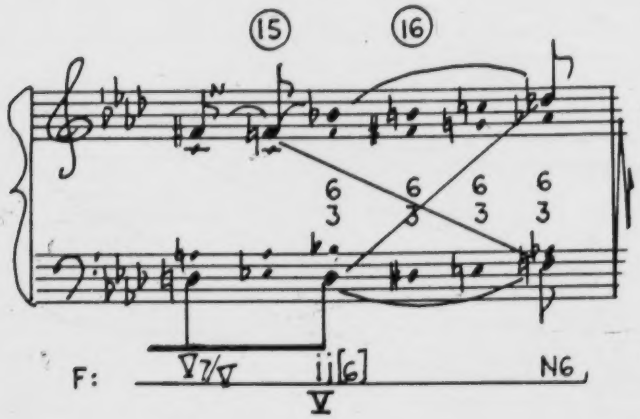
Example III-15: Middleground of "Schilflied," mm. 9-21.

The restatement is altered to begin on the dominant of F (rather than the tonic, as in A), and to cadence in the tonic (rather than the mediant). Scale degrees $\hat{4}$ and $\hat{3}$ are harmonized (as in A) by IV6 and III6, and the pattern of first inversion triads continues to the Neapolitan sixth, the G♭ of which functions as an altered $\hat{2}$ in the Urlinie. As we have already observed, the resolution of scale degree $\hat{2}$

(supported by the structural dominant) to $\hat{1}$ is "deceptive"--the C in the bass resolves upwards by step to D♭ which initiates an arpeggiation down through B♭ to F. The D♭ and B♭ could be interpreted as the linear realization of a $\frac{6-5}{4-3}$ displacement of the F major tonic triad that follows (see Example III-16).

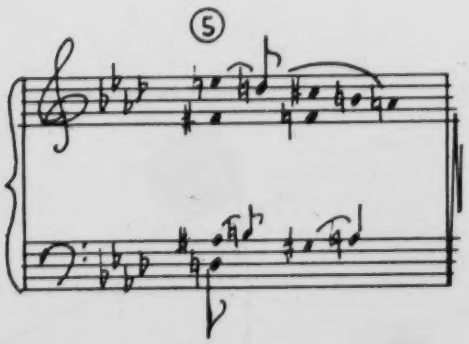
Example III-16: Middleground of Schilflied," mm. 21-29.

The harmonization of chromatic passing notes with non-functional harmonic sonorities is a significant feature at the foreground level of "Schilflied." One such passage occurs in mm. 10-12, in which the bass line ascends chromatically from A♭, supporting an A♭ major chord (III of F), to D, supporting the different forms of the predominant (ii) in C, while the soprano descends chromatically from A♭ to D. In that passage, each voice either moves by step, or is held over as a common tone, and the resulting progressions are mostly

non-functional. The only exception is in m. 11, where vii° 7 of C resolves to I. The significance of the progression in C is clarified in the ensuing passage in which the function of the harmonic sonority supported by the D (the goal of the chromatic line from A♭ in the outer voices) is established as a predominant in C (see Example III-17).

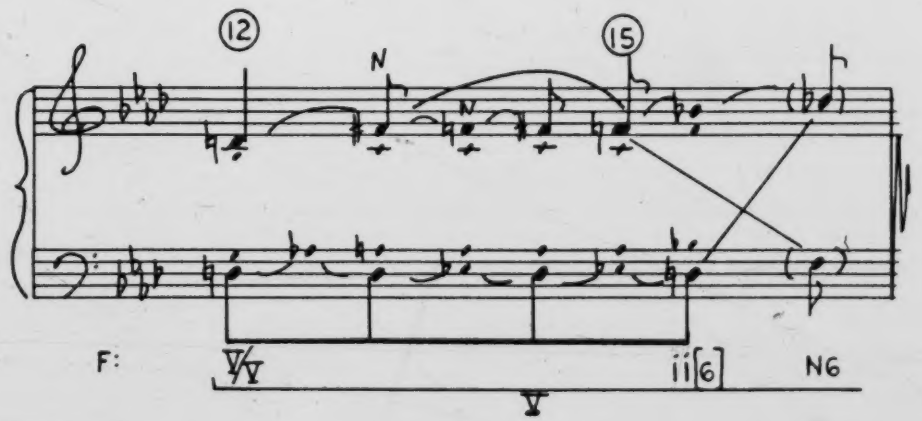
Example III-17: Foreground of "Schilflied," mm. 10-12.

The passage which prolongs the predominant (ii) in C (mm. 15-16) is another example of the harmonization of a chromatic line by non-functional sonorities. A chromatic voice exchange occurs between the D and F of ii (m. 15) and the F and D♭ of the Neapolitan sixth (m. 16). The soprano leaps from F to B♭, and then ascends chromatically from B♭ to D♭ while the bass ascends chromatically from D to F, resulting in rising parallel $\frac{6}{3}$ chords. The B major and C major first inversion triads are merely passing between the B♭ major and D♭ major first inversion triads (see Example III-18).

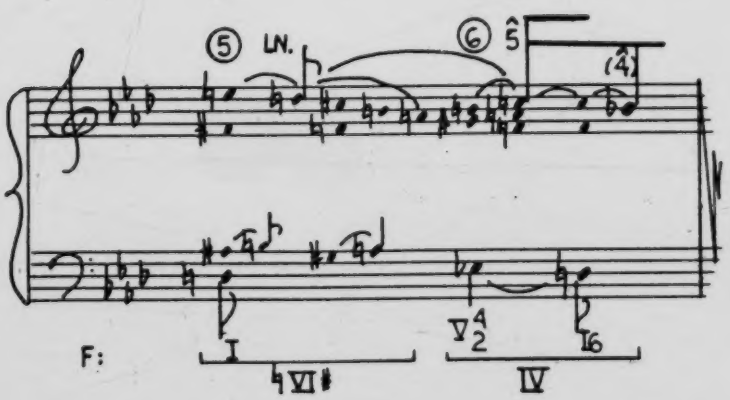
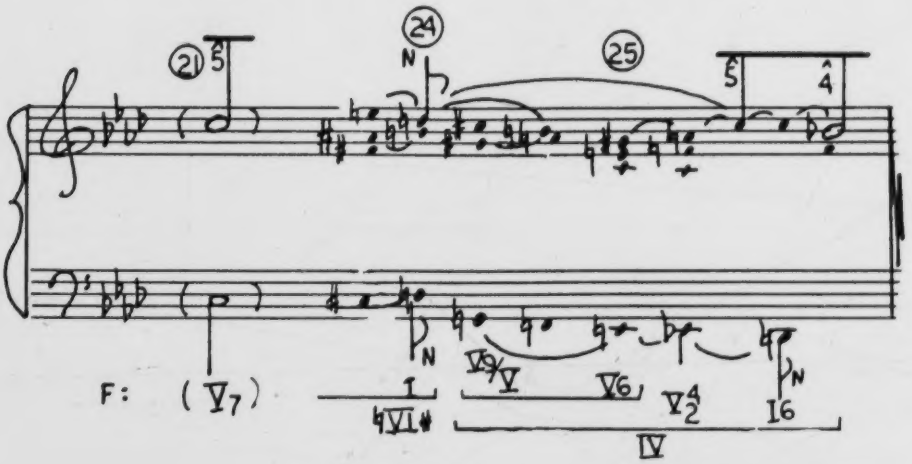
Example III-18: Foreground of "Schilflied," mm. 15-16.

Another common foreground event in "Schilflied" is the 6-5 displacement, which first occurs in m. 5--the fifth of a D major chord (A) is displaced by the sixth (B). The resolution to A occurs only after the alto line has already moved from the major third of the triad (F♯) to the minor third (F♮) (see Example III-19).

Example III-19: Foreground of "Schilflied," m. 5.

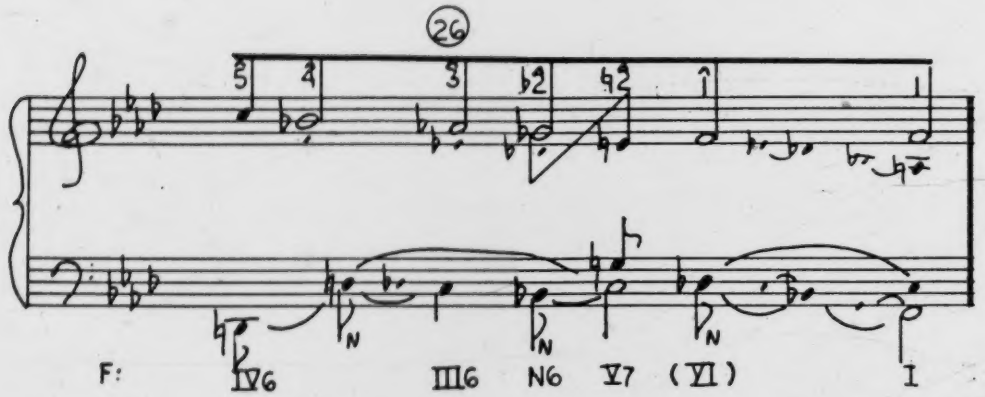


Another example of the 6-5 displacement occurs in the passage which prolongs the predominant (ii) in C (mm. 12-15). The bass note D prolonged throughout the passage is first harmonized by V7 of V of C embellished by a $\frac{6\text{-}5}{4\text{-}3}$ displacement. The major-minor seventh on D is prolonged by the neighbouring chord V_2^4 of B♭ --the E♭ is an upper neighbour to D, the A and C are common to both sonorities, and the F is a lower neighbour to F♯. The V_2^4 of B♭ is then repeated, resolving to I6 in m. 15. At the foreground, the first inversion B♭ major chord functions as I6 of B♭, but at the middleground, it is ii of C with an unresolved 6-5 displacement (the B♭ displaces A) (see Example III-20).

Example III-20: Foreground of "Schilflied," mm. 12-16.

The progression from a D major chord to V_2^4 of B♭ occurs also in sections A (mm. 5-6) and A' (mm. 24-25). In section A, the D major chord is embellished by a 6-5 displacement, the notes of which (B-A) are themselves embellished by chromatic lower neighbours, resulting in a four-note gesture (A♯-B-G♯-A). The last two notes of the gesture (G♯-A) are then repeated, harmonized by V_2^4 of B♭. In the restatement, the first two notes (A♯-B) are harmonized by a D major chord, the last two (G♯-A) by V9 of C, and the repetition of G♯-A by a first inversion augmented triad on C, which functions as V6 of V, resolving to V_2^4 in B♭. The progression from I of D to V_2^4 of B♭, therefore, is simply elaborated by the tonicization of C as V of V of B♭. The tonicization of C is significant since, at the background level, C is being prolonged as the dominant of F throughout this passage (see Example III-21).

Example III-21a: Foreground of "Schilflied," mm. 5-6.

Example III-21b: Foreground of "Schilflied," mm. 21-25.

In summary, all of the 6-5 displacements in "Schilflied" involve the sixth degree of the scale. As we have observed, some occur over the bass note D--the fifth of a D major triad (A) is displaced by the sixth (B) in mm. 5 and 24, and the fifth of a D minor triad (A) is displaced by the flat sixth (B♭) in m. 15. Throughout the piece, the sixth scale degree (D or D♭) is heard as a neighbour to C in both the melody and the bass, harmonized in many different ways--as ♭VI♯, as IV6, as V7/V/C, as ii of C, and as the Neapolitan sixth in C. Another 6-5 displacement, which occurs at the final cadence, involves yet again the sixth degree of the scale (D♭) functioning as a neighbour to C--as we have observed, the bass note D♭ of ♭VI can be understood as a displacement for the fifth of the following tonic chord (see Example III-22).

The musical coherence of "Schilflied" is thus achieved through the recurrence, at different levels, of certain harmonic or melodic

Example III-22: Foreground of "Schilflied," mm. 26-29.

gestures. The neighbour $\hat{6}$ (or $\flat\hat{6}$) to both the Kopfton $\hat{5}$ in the melody and the root of the dominant in the bass, and the 6-5 displacement involving $\hat{6}$ (or $\flat\hat{6}$) are two such gestures which contribute to the unified tonal design of the piece.

CHAPTER IV

ANALYSIS OF "TRAUMGEKRÖNT," "LIEBESODE," AND "NACHT"

In order better to understand the musical language of the songs which comprise our third group, we will draw upon the theories of Berg's harmony teacher, Arnold Schoenberg. During the early years of Berg's study with him, Schoenberg was preoccupied with plans for a harmony textbook (Harmonielehre), which was subsequently published in 1911. A study of Berg's exercise books reveals a direct correspondence between his harmony lessons and Schoenberg's Harmonielehre. The similarities have been catalogued by Rosemary Hilmar in her biography of Berg[1] (see Appendix).

Schoenberg devotes a section of Harmonielehre to "fluctuating [schwebende] and suspended [aufgehoben] tonality," which he says "is not readily illustrated by little phrases because it most surely involves the articulation (Gliederung) of distinct parts of a composition."[2] He does not, therefore, produce abstract harmonic models, but rather lists several compositions which should be studied, including his own "Lockung," Op. 6/7. He also identifies some significant characteristics of this harmonic language:

> If the key is to fluctuate, it will have to be established somewhere. But not too firmly; it should be loose enough to yield. Therefore, it is advantageous to select two keys that have some chords in common, . . . It is evident that vagrant chords will play a leading role here: diminished and augmented seventh chords, Neapolitan sixth, augmented triad.
>
> . . . Further documentation is to be found in Wagner. For example, the Prelude to Tristan. Note that a minor, although it is to be inferred from every passage, is scarcely ever sounded in the whole piece. It is always expressed in circuitous ways; it is constantly avoided by means of deceptive cadences.

> As for suspended (aufgehoben) tonality, the theme is the crux of the matter. It must give opportunity for such harmonic looseness through its characteristic figurations. The purely harmonic aspect will involve almost exclusive use of explicitly vagrant chords. Every major or minor triad could be interpreted as a key, if only in passing. The classical development sections are not too far removed from this. There, to be sure, at any particular moment, a key may be unmistakably expressed, yet so lacking in support that it can be lost at any time.[3]

Schoenberg introduces suspended tonality in an earlier chapter of Harmonielehre:

> From the outset the tonic does not appear unequivocally, it is not definitive; rather it admits the rivalry of other tonics alongside it. The tonality is kept, so to speak, suspended, and the victory can then go to one of the rivals, although not necessarily.
>
> The harmony is nowhere disposed to allow a tonic to assert its authority. Structures are created whose laws do not seem to issue from a central source (Zentrum); at least this central source is not a single fundamental tone.[4]

In a later work, Structural Functions of Harmony, Schoenberg dedicates a chapter to what he calls "schwebende Tonalität" (this time translated as "suspended tonality"). Part of the score of "Lockung" is reproduced, with a harmonic analysis in two sets of Roman Numerals--one in E♭ major, the other in C minor--thus demonstrating the ambiguity of the tonal centre.[5]

Robert Bailey uses the term "double-tonic complex"[6] to describe the relationship between these "rival" or "paired"[7] tonics. This relationship manifests itself in the following ways:

1. Exploitation of common and ambiguous harmonic function.
2. Implication of the two tonics in alternation or succession.
3. Use of one tonic to resolve the dominant of the other.
4. Direct superposition of lines and textures implying one tonic upon those implying the other.[8]

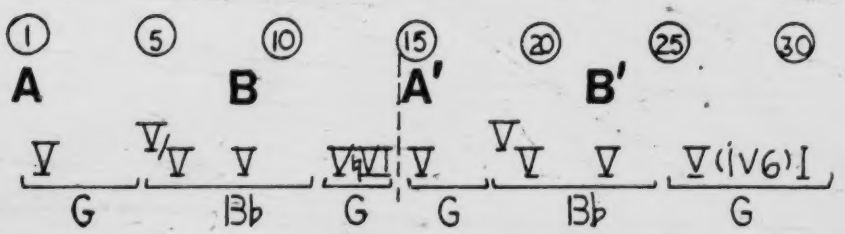
Two of Berg's Sieben Frühe Lieder, "Traumgekrönt" and "Liebesode," can be understood as examples of Schoenberg's fluctuating and suspended tonality.

In "Traumgekrönt," Berg exploits the paired tonics G and B♭, implications of which are realized at the background level of composition. There is a strong $\hat{3}\ \hat{2}$ // $\hat{3}\ \hat{2}\ \hat{1}$ melodic descent in G; however, it is not harmonized by the I-V // I-V-I of common-practice tonality. Throughout the piece, G is represented by its dominant, which never resolves directly to the tonic, but instead either resolves deceptively, or progresses by means of chromatic voice-leading to the dominant of F. The other side of the complex, B♭, is expressed in "circuitous ways," through the tonicization of its dominant (F) superimposed with melodic/harmonic implications of the B♭ minor triad.

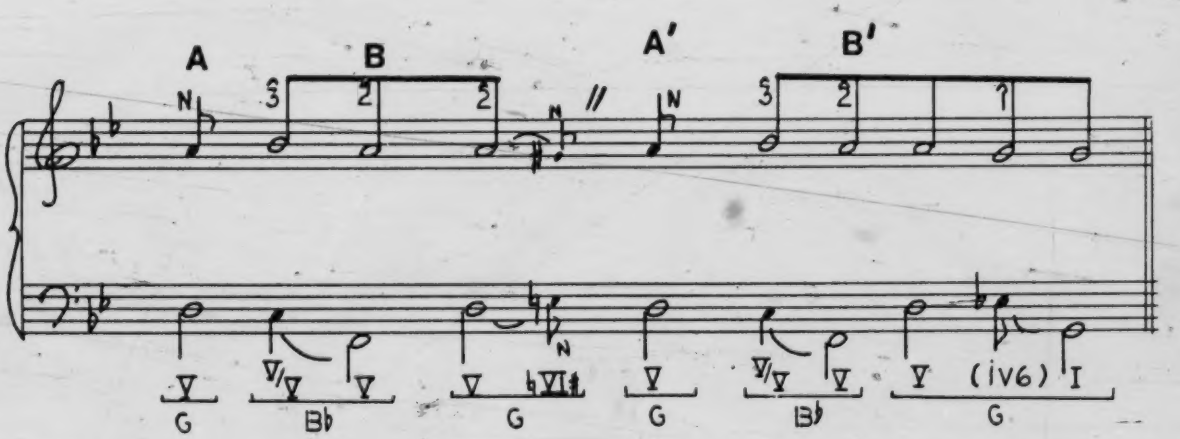
The form of the piece, a repeated binary division, is shown in Example IV-1a. In the repetition of the A and B sections, the vocal line and orchestral parts are exchanged, and the final cadence is altered. This formal structure is articulated by the clearly divided phrases of the vocal line, and by the tonal design (as indicated in Example IV-1b).

The dominant of G is established in m. 3 with A ($\hat{2}$) in the melody. This A acts as a neighbour to the Kopfton $\hat{3}$ which enters in m. 5 supported by the dominant seventh of F, itself the dominant of B♭. The Kopfton descends to scale degree $\hat{2}$ (A) in m. 8, harmonized in turn by the dominant of each of the tonics, B♭ and G. The dominant of G resolves deceptively to an E major chord (VI of G through secondary

Example IV-1a: Tonal Design of "Traumgekrönt."



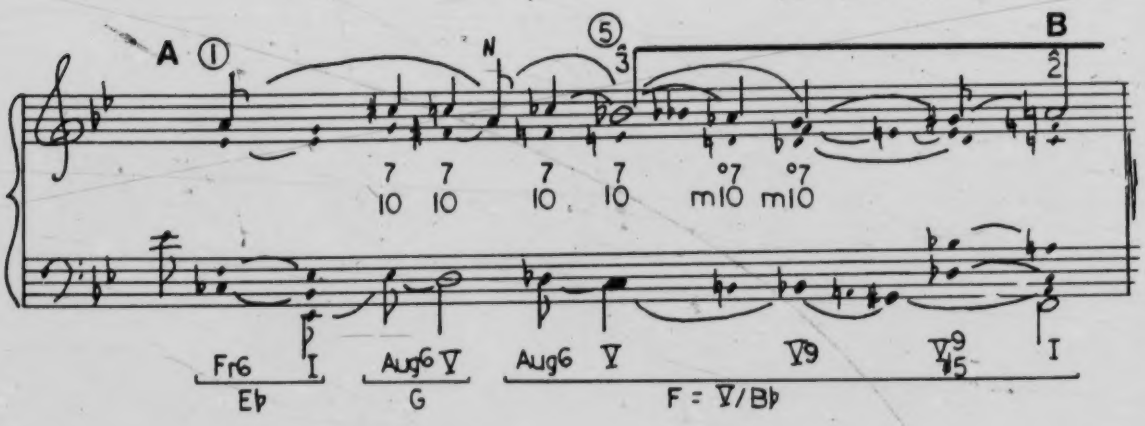
Example IV-1b: Background of "Traumgekrönt."



mixture), effecting an interruption. The entire passage is then repeated, but with the final cadence altered to allow the melodic descent to $\hat{1}$--the dominant of G again resolves deceptively, but this time to a diatonic chord in G (iv6) which precedes the tonic (see Example IV-1b).

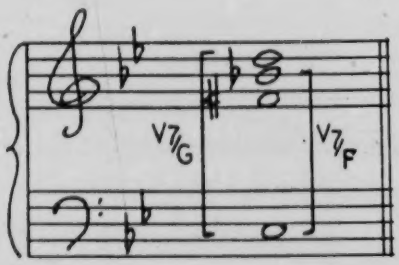
At the middleground level, the voice-leading progressions are refined and clarified. The first sonority is one which Berg uses frequently to effect a smooth transition between distantly-related chords--a French sixth, in this case built on C♭ and resolving as an embellishing augmented sixth to an E♭ major chord. This E♭ chord then becomes in turn, with an added C♯, an augmented sixth chord, resolving conventionally to V of G. The progression beginning on the augmented sixth of G initiates a linear intervallic pattern $\left(\begin{smallmatrix}7 & 7 & 7 & 7\\ 10 & 10 & 10 & 10\end{smallmatrix}\right)$, the goal of which is the dominant of F. The transition from V7 of G to V7 of F is facilitated by this pattern in which each voice moves downward by chromatic step. At the dominant seventh of F the pure pattern of minor sevenths and major tenths is altered, and continues for two more repetitions as a pattern of diminished sevenths and minor tenths. The chord thus reached itself prolongs the dominant seventh of F--E (at first displaced by F)-G-B♭-D♭, or V9 of F without the root. This becomes (in m. 8) E-G♯-B♭-D♭, or $V^{9}_{\sharp 5}$ without the root, resolving to I of F. The entire passage from mm. 5-8, therefore, can be read as a prolongation of the progression V-I in F (see Example IV-2).

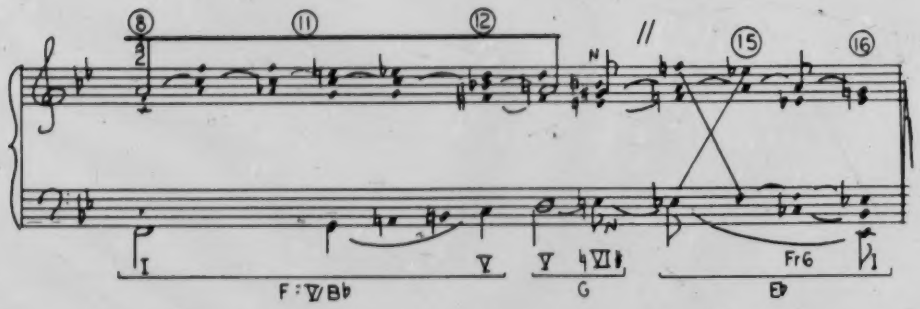
The B section begins with an extended prolongation of the F major chord. In mm. 11-12 the prolonged dominant of F is followed by the dominant of G. This rather abrupt progression (V/F to V/G) is simplified by the voice-leading. The C major chord (V of F) is never stated as a vertical sonority; that is, it is not supported by its

Example IV-2: Middleground of "Traumgekrönt," mm. 1-8.

root, C. Rather, the bass line ascends from G, arriving on C only after the upper voices have been displaced. The resulting sonority supported by the C implies both V7 of F and V7 of G (see Example IV-3). The dominant of G resolves deceptively to an E major chord, in which the G♯ functions as a lower neighbour to scale degree $\hat{2}$, and the E as an upper neighbour to the bass note D. The E major chord is itself heard as a neighbour to the sonority F-A-E♭ which, with an added C♭, comprises the augmented sixth chord of E♭, and marks the return of the A section material (see Example IV-4).

As we have observed, the only substantial alteration to the repetition of sections A and B occurs at the final cadence. The dominant of G which supports scale degree $\hat{2}$ (A) resolves, not to an E major chord as before, but rather to iv6 of G--scale degree $\hat{2}$ resolves to scale degree $\hat{1}$, while the bass note D resolves deceptively to E♭.

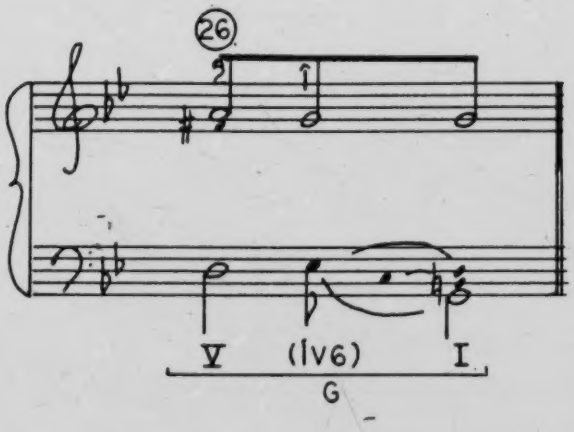
Example IV-3: Sonority implying V7/F and V7/G.



Example IV-4: Middleground of "Traumgekrönt," mm. 8-15.

Berg has avoided stating the tonic of G throughout "Traumgekrönt"; the dominants at mm. 3, 12, 17, and 26 all resolve elsewhere than to the tonic. The only G tonic chord occurs at the very end of the piece, and is not approached by the dominant. The bass arpeggiation from E♭ (under the iv6) through C to G suggests the displacement of the G major

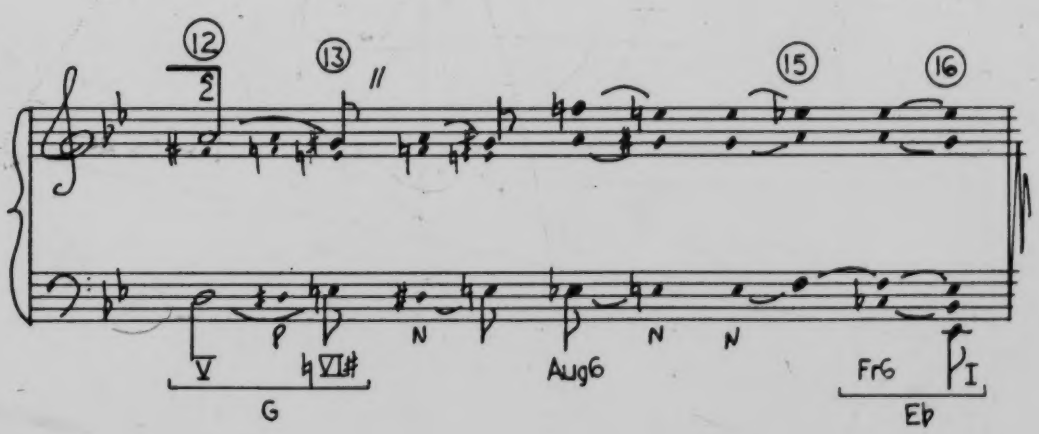
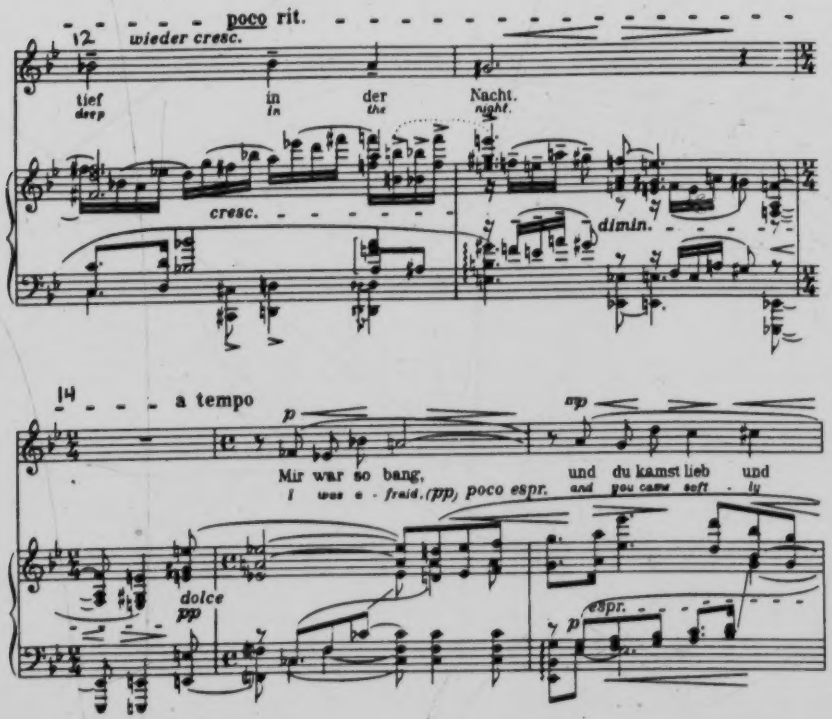
tonic chord by iv6, since the E♭ and C can be read as a $\frac{6}{4}$ displacement of the $\frac{5}{3}$ root position chord (see Example IV-5).

Example IV-5: Final Cadence of "Traumgekrönt."



Throughout the piece, Berg exploits the inherent ambiguity of the French sixth sonority. The opening chord, C♭-E♭-F-A, resolves (in m. 1 and again in m. 16) as an embellishing augmented sixth in E♭. The same sonority is used in m. 12 to connect the dominant of G to an E major chord, as the D rises to E through D♯ and the F♯ falls to E through F. The sonority resulting from the passing motion is also an augmented sixth chord--F-A-D♯--which resolves to E major. This resolution is repeated twice, rhythmically articulated in such a way that we are not sure which harmony is being prolonged. At first, the augmented sixth, occurring on a weaker beat, is heard as a neighbour to the E major chord. But it is also heard in a syncopated rhythmic pattern with the resolution to E major occurring on a weaker beat.

The next gesture then implies that the E major chord is a neighbour to the augmented sixth, as the E chord resolves to the augmented sixth (in a different inversion) on the downbeat of m. 15. This augmented sixth is reinterpreted as the French sixth of E♭, resolving, as it did in m. 1, to I of E♭ (see Example IV-6). The passage in mm. 13-15 thus presents an interesting problem of hierarchy. The E major chord is at first structural, being prolonged by an augmented sixth, and then prolongational, as it embellishes the augmented sixth. The role of the augmented sixth likewise changes throughout this passage. It is first heard as a passing sonority between the dominant of G and the E major chord. It is then itself prolonged, the E major chord functioning as a neighbour to it. Finally, it is heard as an embellishing augmented sixth chord resolving to I of E♭.

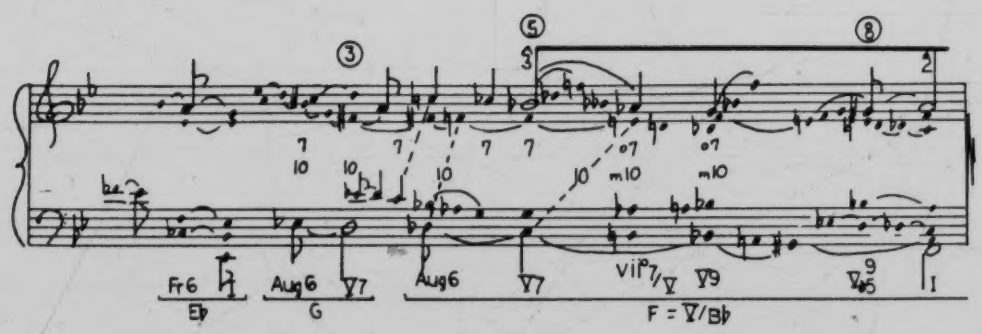
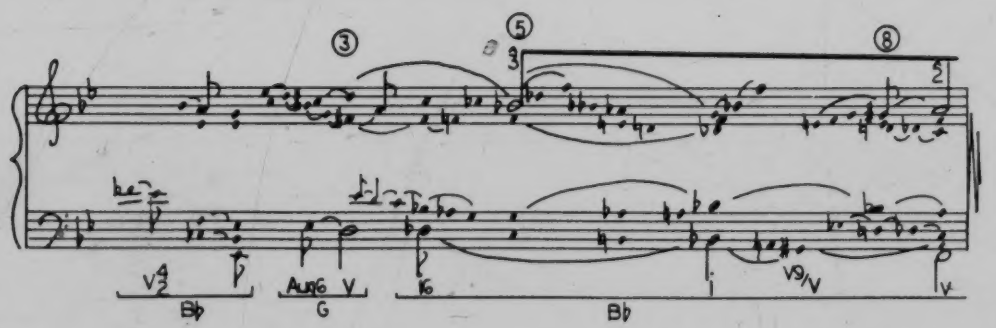
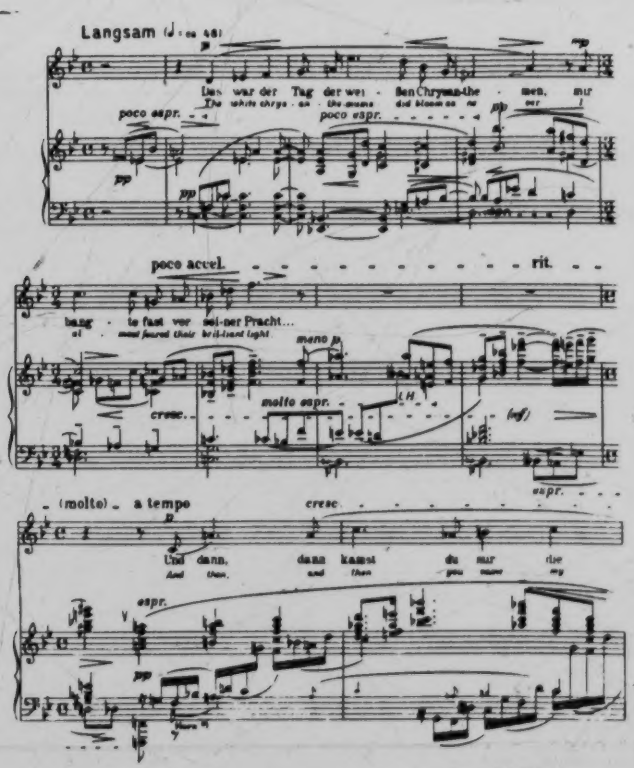
Example IV-6a: Foreground of "Traumgekrönt," mm. 12-15.

Example IV-6b: Piano-Vocal Score of "Traumgekrönt," mm. 12-15.

It is interesting to note that this same augmented sixth sonority could also be interpreted as $V^7_{\flat 5}$ of B♭ (F-A-C♭-E♭), one of the paired tonics of the song. Although it is never resolved at the foreground level as V of B♭, we can hear the connection at a deeper level. To approach this alternative reading we begin at the foreground.

The opening section of the song can be interpreted at least two different ways. Examples IV-7a and IV-7b demonstrate these conflicting

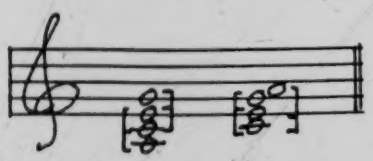
interpretations. At the foreground, the linear intervallic pattern of mm. 2-7 is disguised by voice-leading displacements (see Example IV-7a). Some interesting sonorities result. For instance, in m. 5 the C and G in the bass support a B♭ minor triad in the upper voices. The B♭ and D♭ can be understood as the seventh and ninth above the C, and the F as a displacement of the E; the implication of B♭, however, is of course significant in the context of the rest of the passage. The previous chord in the linear intervallic pattern, D♭-F-A♭-B, an augmented sixth in F, is disguised by the voice-leading. The sonority on the downbeat of m. 4 is a B♭ minor triad in first inversion with an added C (see Example IV-7b). There is a similar reference to B♭ in m. 7--the chord B♭-D♭-F-G can be heard as a B♭ minor triad with an added sixth. The entire passage in mm. 4-7 can, then, be understood as a prolongation of the B♭ minor triad, with the bass line effecting a chromatic descent from D♭ to B♭. The vocal line reinforces this interpretation of the opening section--the Kopfton $\hat{3}$ (B♭), articulated on the downbeat of m. 5, initiates the upward arpeggiation of a B♭ minor triad.

Let us return to the opening sonority which can be reinterpreted as $V^7_{\flat 5}$ of B♭. As we have observed, mm. 4-7 can be understood as a prolongation of the B♭ minor triad. The chord in m. 1, therefore, can be heard as an altered dominant seventh of B♭, resolving in m. 4 to the tonic (see Example IV-7b).

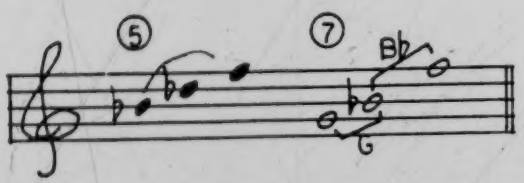
Robert Bailey refers to a sonority which implies both tonics as the "harmonic embodiment of a double-tonic complex."[9] That

Example IV-7a: Foreground of "Traumgekrönt," mm. 1-8.

Example IV-7b: Foreground of "Traumgekrönt," mm. 1-8.

Example IV-7c: Piano-Vocal Score of "Traumgekrönt," mm. 1-8.

embodiment usually takes the form of a minor-minor seventh chord, or a chord with an added sixth (see Example IV-8a). In "Traumgekrönt" the harmonic embodiment of the complex is perhaps the chord from m. 7--the B♭ minor triad with an added sixth (G). This combination of pitches (G-B♭-D♭-F) does not allow for the perfect fifth from G to D, and thereby negates the possibility of hearing G as a tonic. The prominent melodic gesture at this point (G-B♭-F), however, implies both G and B♭ equally, since the D♭ is not included (see Example IV-8b).

Example IV-8a: Harmonic Embodiment of a Double-Tonic Complex.

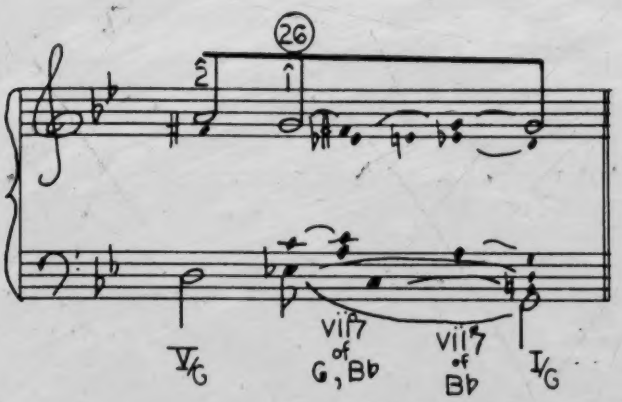


Example IV-8b: Harmonic/Melodic Embodiment of G/B♭ Complex.



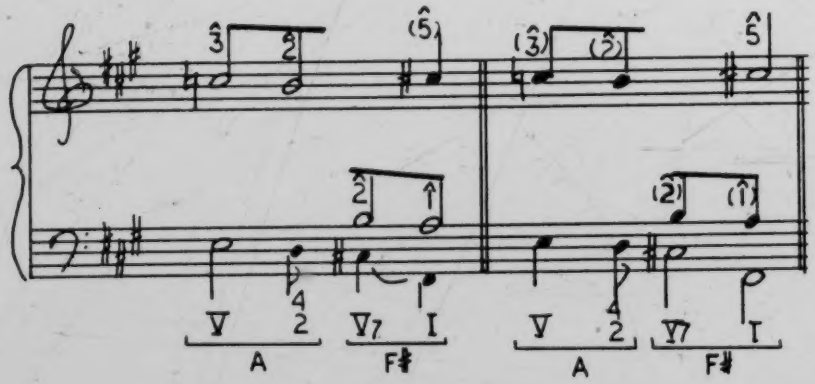
The influence of the B♭ side of the complex is also evident at the closing cadence. The final G major chord is preceded by a diminished seventh sonority built on C. The C supports first a fully diminished seventh chord (F♯-A-C-E♭) which is both vii°7 of G and, if we "think fast,"[10] vii°7 of B♭ (A-C-E♭-G♭). Before resolving to the G major chord, the F♯ rises to G creating a half diminished seventh chord on A (A-C-E♭-G), which can no longer be considered vii°7 of G, but still implies vii ø 7 of B♭ (see Example IV-9).

Clearly, the relationship between the paired tonics G and B♭ manifests itself at all levels (background, middleground, and foreground) of the music. Both sides of the complex are expressed in "circuitous ways"--G is represented throughout the piece by its

Example IV-9: Final Cadence of "Traumgekrönt."

dominant, which resolves either deceptively, or progresses to the dominant of F, and B♭ is expressed through the tonicization of its dominant (F) superimposed with melodic/harmonic implications of the B♭ minor triad. Thus, there is an avoidance of direct V-I resolutions in both keys. The tonal conflict is resolved at the end of the piece in favour of the G side of the complex through the melodic descent in G and the unequivocal final statement of the G major chord.

In "Liebesode," Berg's exploitation of the paired tonics F♯ and A is reflected at all levels of the music. At the background level, a $\hat{3}\ \hat{2}\ \hat{1}$ melodic descent in A minor (C♮-B-A) is supported by the progression V/A-V/F♯-i/F♯. There is no melodic descent in F♯; rather, $\hat{5}$ of F♯ (C♯) is prolonged throughout the piece, and remains unresolved at the final cadence. Example IV-10 demonstrates two possible interpretations of the background--one which emphasizes the

structural events in A, the other, the structural events in F♯. In strict Schenkerian terms, these two events necessarily contradict each other, but here they are a natural result of the tonal syntax, since an event can be "simultaneously structural and prolongational at the same level."[11]

Example IV-10: Background of "Liebesode."

The relationship between these paired tonics manifests itself in the following ways: 1) the exploitation of common and ambiguous harmonic functions, such as the opening sonority which is the French sixth of F♯ and V^4_2 of A simultaneously; 2) the superposition of lines and textures implying one tonic upon those implying the other, which is most clearly evident in the refrain (mm. 1-4, 9-12, 21-24), wherein a melodic descent in A is harmonized by V-i in F♯; 3) the dominant of one tonic (A) resolving to the dominant of the other (F♯),

as in mm. 1-2, 9-10, and 21-22; and 4) the implication of the two tonics in alternation or succession, exemplified by a V-i resolution in F♯ nested within a V-I resolution in A.[12]

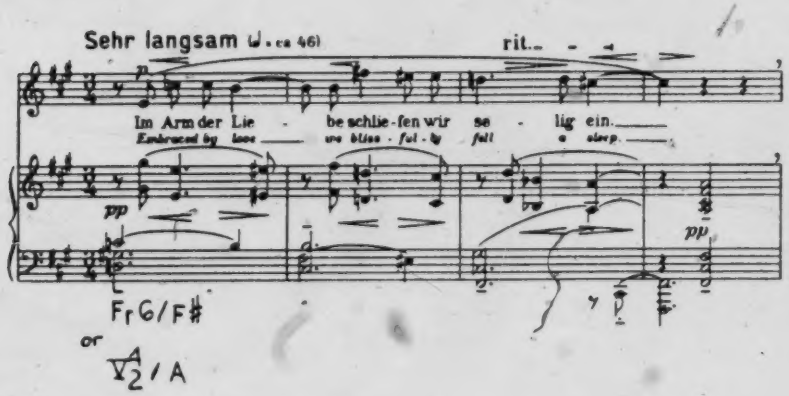
The formal structure of the piece is derived from a gradual expansion of a four-measure refrain. The first phrase (mm. 1-4) comprises only the refrain. The second phrase (mm. 5-12) consists of four measures of new material followed by the refrain. Phrase 3 (mm. 13-24) begins with an eight-measure elaboration of the new material from phrase 2, leading into the final statement of the refrain. Each successive section is thus extended by exactly four measures (see Example IV-11).

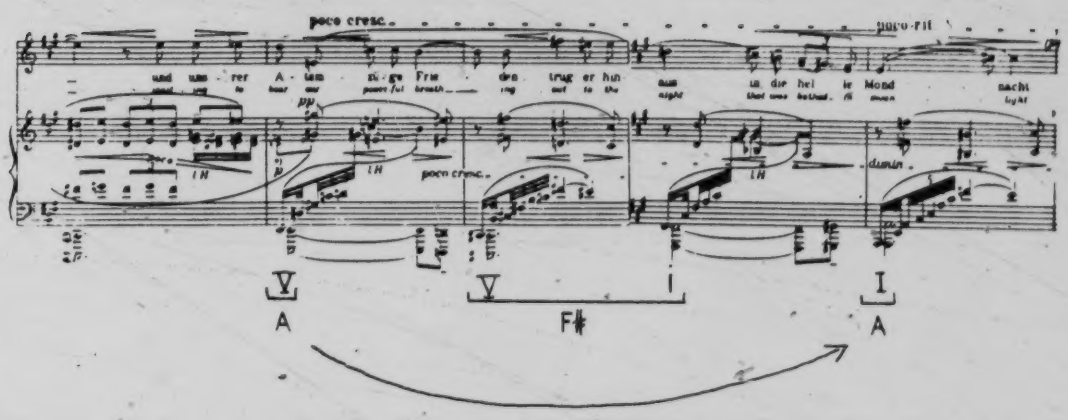
Example IV-11: Phrase Structure of "Liebesode."

PHRASE:	1	2	3	1
Measure Nos:	1-4	5-12	13-24	
No of Measures:	4	8	12	

The refrain is itself a concise expression of the tonal conflict of the piece. In the first statement of the refrain, the opening sonority resolves conventionally as a French sixth to the dominant seventh of F♯. In the second and third phrases, however, the refrain is altered to begin with a root position dominant seventh of A, which

resolves, through its third inversion, to the dominant seventh of F♯. In retrospect a second interpretation of the opening is possible--the supposed French sixth in F♯ could be V_2^4 of A (see Example IV-12). In the second statement of the refrain (mm. 9-12), the sonority is heard unquestionably as the dominant of A. The refrain is altered to end on an A major chord, which results in the following progression: V7-V_2^4/A--V7/F♯--i/F♯--I/A. Clearly, the A major chord is heard as a resolution of the dominant seventh which initiates the progression. Nested within the V-I resolution in A is a V-i resolution in F♯ (see Example IV-13).

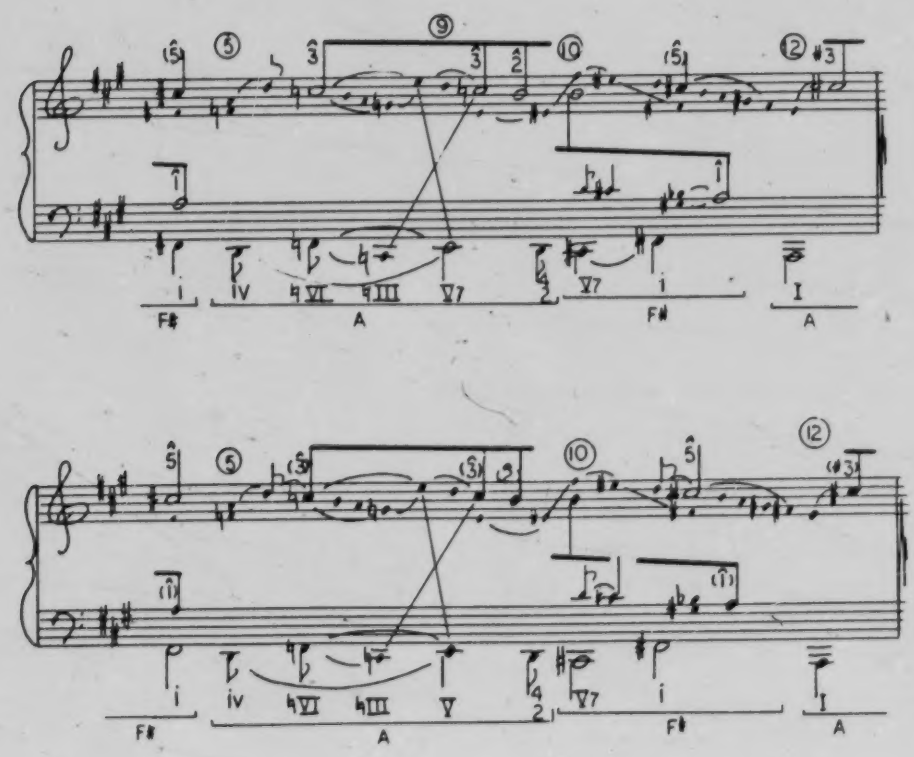
Example IV-12: Piano-Vocal Score of "Liebesode," mm. 1-4.

Example IV-13: Piano-Vocal Score of "Liebesode," mm. 8-12.



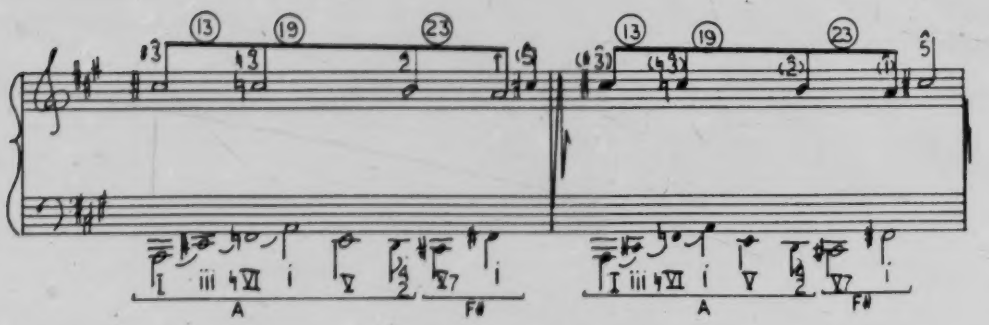
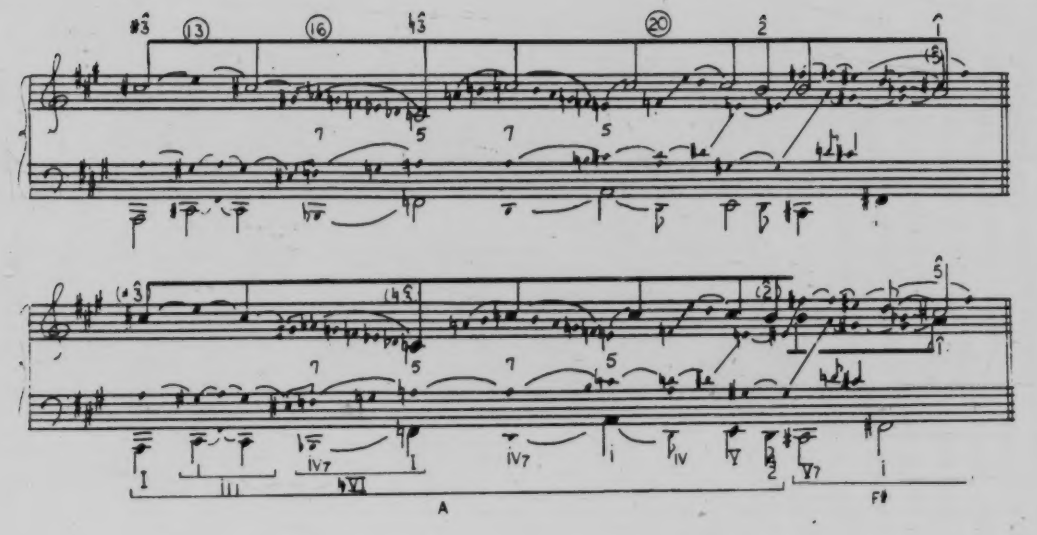
The formal structure of the piece, a gradual expansion of the opening refrain, articulates a corresponding increase in the clarification of the tonal conflict between F♯ and A. That is, the function of A as one of the paired tonics is not revealed in the first phrase, but becomes more explicit with each successive phrase. In the opening gesture, there is a subtle reference to A minor through the $\hat{3}\ \hat{2}\ \hat{1}$ melodic descent in that key, and the opening sonority, which, in retrospect, can be understood as V^4_2 of A.

In the second phrase, the tonality of A is still slightly veiled by an ambiguous opening progression and an interrupted V-I resolution. The phrase begins with the ambiguous progression which leads eventually to the dominant seventh of A. The chord progression--D minor-F major-C major--does not necessarily define a particular tonal centre. Although it could be a prolongation of C major, F major, or A

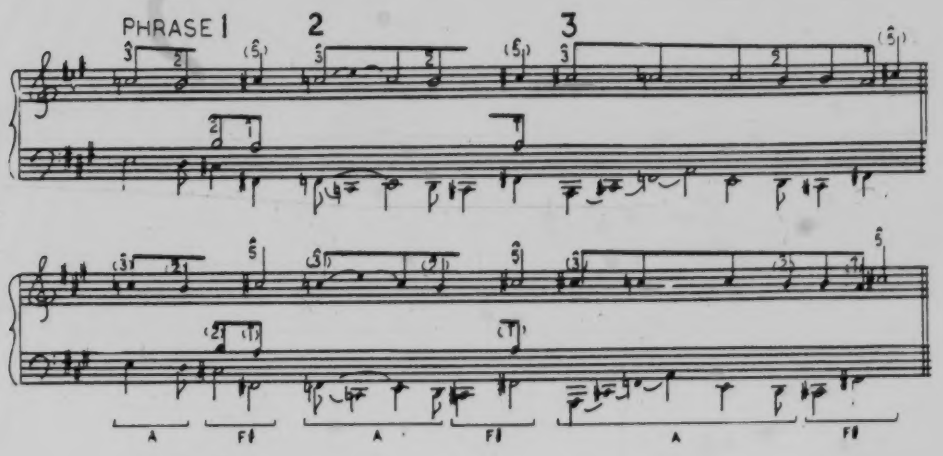
minor, the progression from a D minor triad to an F major triad cannot be considered a conventional progression in any of these keys (in C: ii-IV, in F: vi-I, in A: iv-VI). The tonality of this passage is clarified in m. 9 with the establishment of the dominant seventh of A. The resolution of the dominant to an A major chord is interrupted by the aforementioned nested V-i resolution in F♯ (see Example IV-14).

Example IV-14: Foreground of "Liebesode," Phrase 2.

Throughout phrase 2 is a prolongation of the $\hat{3}\ \hat{2}\ \hat{1}$ melodic descent in A minor, the C♮ of which negates scale degree $\hat{5}$ of F♯ (C♯).

In the last phrase, the tonality of A is established unequivocally. The only strong reference to F♯ occurs at the final cadence, on which is superposed the $\hat{3}\ \hat{2}\ \hat{1}$ melodic descent in A minor. At the deep middleground level, the arpeggiation of an A augmented triad (A-C♯-F-A) is evident in this passage (see Example IV-15). This triad, while it can be heard as a prolongation of A, cannot be heard as a prolongation of F♯. The phrase begins with a tonicization of C minor, which, since it is preceded by I of A major, is heard more strongly as iii of A than v of F♯. Following the prolongation of C minor is a tonicization of F as VI of A. The progression in F (iv7-I) is then sequenced in A, followed by the progression iv-V7 in A, the dominant seventh of which marks the return of the refrain. The melodic descent prolonged throughout phrase 3 is $\hat{3}\ \hat{2}\ \hat{1}$ in A minor, the C♮ again negating $\hat{5}$ of F♯ (see Example IV-15).

Example IV-15a: Deep Middleground of "Liebesode," Phrase 3.

Example IV-15b: Foreground of "Liebesode," Phrase 3.

In summary, the A side of the complex, although at first subsumed by the F♯ minor side, becomes more prominent as the piece unfolds. In the first phrase, the F♯ side is paramount--there is a strong harmonic progression in F♯ with no clear harmonic reference to A. Phrase 2 begins with a tonicization of A minor, which, since the A minor scale has no conventional relationship with F♯ minor or major, negates the F♯ side. The statement of the refrain in mm. 9-12 is

slightly altered--rather than ending on an F♯ minor chord, the phrase ends on an A major chord, which again gives strength to the A side of the complex. The first part of phrase 3 (mm. 13-21) is also weighted towards A (through the minor mode); however, the phrase ends with a final statement of the refrain, in which the melodic descent in A minor is supported by a strong V-i resolution in F♯ (see Example IV-16).

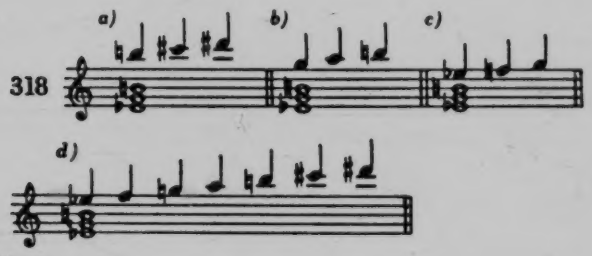
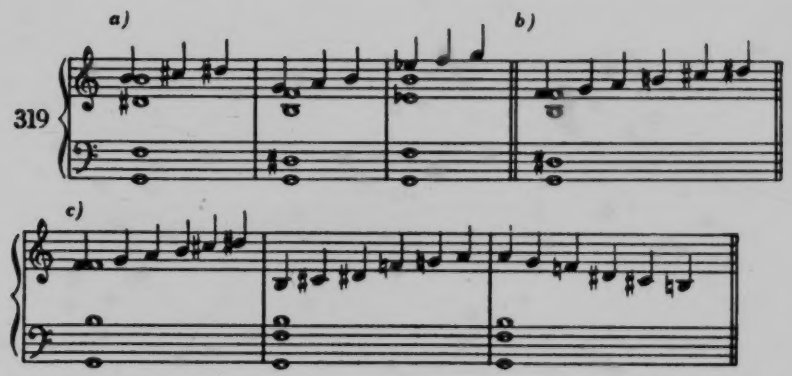
Example IV-16: Deep Middleground of "Liebesode."

The tonal conflict between F♯ and A is left unresolved at the end of "Liebesode"; that is, there is no sense in which the complex is resolved in favour of one of the tonics. Although the final harmonic resolution is clearly in F♯, there is no melodic resolution in that key, since the V-i cadence in F♯ supports a melodic descent in A minor.

Although Berg's "Nacht" can be considered an example of "fluctuating and suspended" tonality, the tonal design does not resemble that of "Traumgekrönt" or "Liebesode." In "Nacht," Berg experiments with the use of whole-tone scale formations within a tonal context.

Schoenberg states that "vagrant chords"--such as diminished and augmented seventh chords, the Neapolitan sixth, and augmented triads--play a leading role in establishing fluctuating and suspended tonality.[13] Further, he demonstrates how the simple "chromatic alteration upward of the fifth" of any major triad can be introduced to produce a sense of tonic. The augmented triad that results from this alteration can function as a secondary dominant if it resolves to a chord whose root is a perfect fourth away. The chromatic alteration can be applied to a major triad or, if the third is also raised, to a minor triad on any scale degree.[14]

Schoenberg attributes the origin of the augmented triad to Wagner's "Walkürenmotiv," and the origin of the whole-tone scale to Wagnerian altered seventh and ninth chords, thus contradicting the theory that the whole-tone scale "arose from the influence of exotic music."[15] The use of passing tones to connect 1) the chord tones of an augmented triad (see Example IV-17a), or 2) the chord tones of a

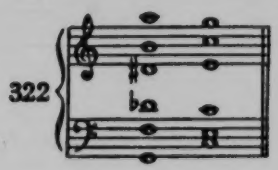
dominant seventh with raised or omitted fifth (see Example IV-17b), are "two forerunners of the deliberate use of the whole-tone scale."[16]

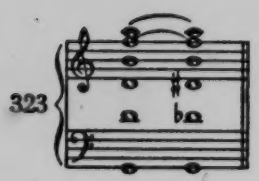
Example IV-17a: Schoenberg's Example 318 in Harmonielehre.

Example IV-17b: Schoenberg's Example 319 in Harmonielehre.

Gregory Proctor also attributes the origin of the whole-tone scale (and other symmetrical divisions) to the tendency of nineteenth-century composers, in their "search for new structural bases," to divide "a pitch interval into two [or more] smaller intervals equal in size as measured in tempered semitones."[17] Thus, the octave can be

divided symmetrically into twelve semitones, six whole tones, four minor thirds, three major thirds, or two tritones.[18]

Schoenberg points out that a dominant ninth chord with simultaneous raised and lowered fifths contains all six tones of a whole-tone scale.[19] The resolution and derivation of this chord are shown in Examples IV-18a and IV-18b respectively.

Example IV-18a: Schoenberg's Example 322 in Harmonielehre.



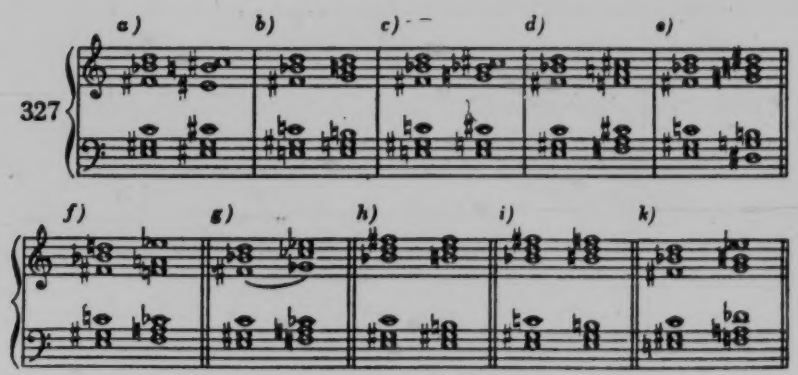
Example IV-18b: Schoenberg's Example 323 in Harmonielehre.

A distinction is made between the use of the whole-tone scale or hexachord in a harmonic or structural context and its use in the music of Debussy for what Schoenberg calls colouristic effect:[20]

> Debussy uses this chord and scale more in the sense of impressionistic expressive devices, somewhat as a tone color (so does Strauss in Salome); but they entered my work more for the sake of their connection with other chords, the scale for the sake of its peculiar influence on the melody.[21]

Schoenberg also demonstrates the modulatory possibilities of the whole-tone hexachord which he regards as a vagrant chord:

> Each tone can be the root of a dominant; there are then six resolutions to major triads. Obviously, for any other type of resolution shown [in his Example 327], there will also always be six transpositions (one on each of the six tones). Hence, six times the resolution to a dominant seventh chord (Example 327a), to a secondary seventh chord (327b), to a diminished seventh chord (327c), to two augmented triads (327d and e), to a seventh chord with lowered fifth (327f), to a minor ninth chord with lowered fifth (327g), to a major ninth chord (327h), to a minor ninth chord (327i), and finally to the other whole-tone chord (327k). That makes sixty resolutions already, . . .[22]

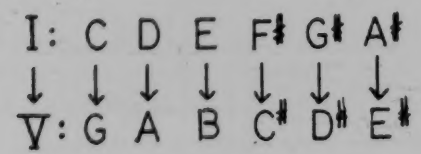
Schoenberg's Example 327 is shown in Example IV-19.

Example IV-19: Possible Resolutions of the Whole-Tone Hexachord.

Schoenberg's view that the tonal implications of the symmetrical whole-tone hexachord depends on functional considerations (root movement), is contrary to Proctor's theory that the whole-tone

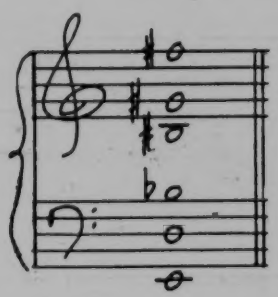
scale can have "no diatonic significance."[23] Schoenberg's theory requires that a hierarchy be imposed upon the whole-tone scale, that a root be fixed, and that the function of the resulting whole-tone hexachord be determined by its resolution out of the symmetrical system, into a tonal context. Proctor's theory implies, since there can be no hierarchy of pitches, that there are only two possible transpositions of the whole-tone scale--the original scale, and its transposition up a semitone. This is contrary to Schoenberg's assertion that there are six transpositions of each of Proctor's two scales.[24]

Schoenberg's Example 327k demonstrates that one whole-tone hexachord can function as a dominant to the other. We must add to this discussion that, since there are no perfect fifths in the whole-tone scale, there can be no dominant/tonic relationships within any one scale. The perfect fifth relationships can occur only between contrasting scales--for each possible tonic in one scale, a corresponding dominant can be found in the other (see Example IV-20).

Example IV-20: Tonic/Dominant Relationships between Whole-Tone Scales.

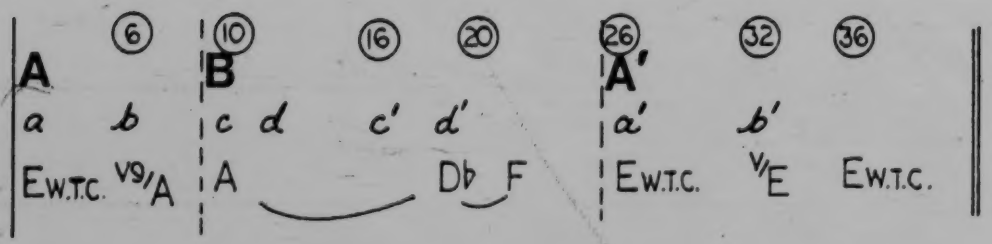


Whole-tone scale figurations in harmonic and structural contexts such as those described by Schoenberg occur in Berg's "Nacht." Berg exploits the inherent ability of the whole-tone hexachord to function as an altered dominant. Although there are extended passages which do not deviate from whole-tone scale formations, the piece is nonetheless fundamentally tonal, with a tonic of A. Throughout the song, the dominant of A is an altered ninth chord on E, which contains all six notes of the whole-tone scale. The piece begins and ends with prolongations of the whole-tone hexachord on E, functioning as the dominant of A (see Example IV-21).

Example IV-21: Whole-tone Hexachord on E.

The song's ternary formal structure (A B A') is articulated by the following background tonal organization: sections A and A' prolong V9 of A as represented by the whole-tone hexachord on E, and section B prolongs A through the arpeggiation of the A augmented triad (see Example IV-22). The first unit (a) of the first section features whole-tone scale formations exclusively. The second unit (b) digresses

from that scale, beginning on a half-diminished seventh chord. The whole-tone scale returns, however, at the end of unit b, as the dominant of A. The entire first section, therefore, prolongs the dominant represented by the whole-tone hexachord on E.

Example IV-22: Background Tonal Organization of "Nacht."



W.T.C. = Whole Tone Hexachord

In the first part of section B (units c and d), A major is prolonged through the conventional progression I-IV-N-V-I, and the subdominant and Neapolitan are tonicized. The repetition of this material (c' and d') is altered to tonicize D♭ and F (instead of the Neapolitan B♭), creating an arpeggiation of the augmented triad A-D♭-F.

In common-practice ternary forms of which the first section cadences in the dominant, the restatement is altered to effect a resolution, resolving the tonal conflict of the piece. In "Nacht,"

however, the restatement is not altered to cadence in the tonic. The piece ends with a prolongation of the whole-tone hexachord on E functioning still as the dominant of A.

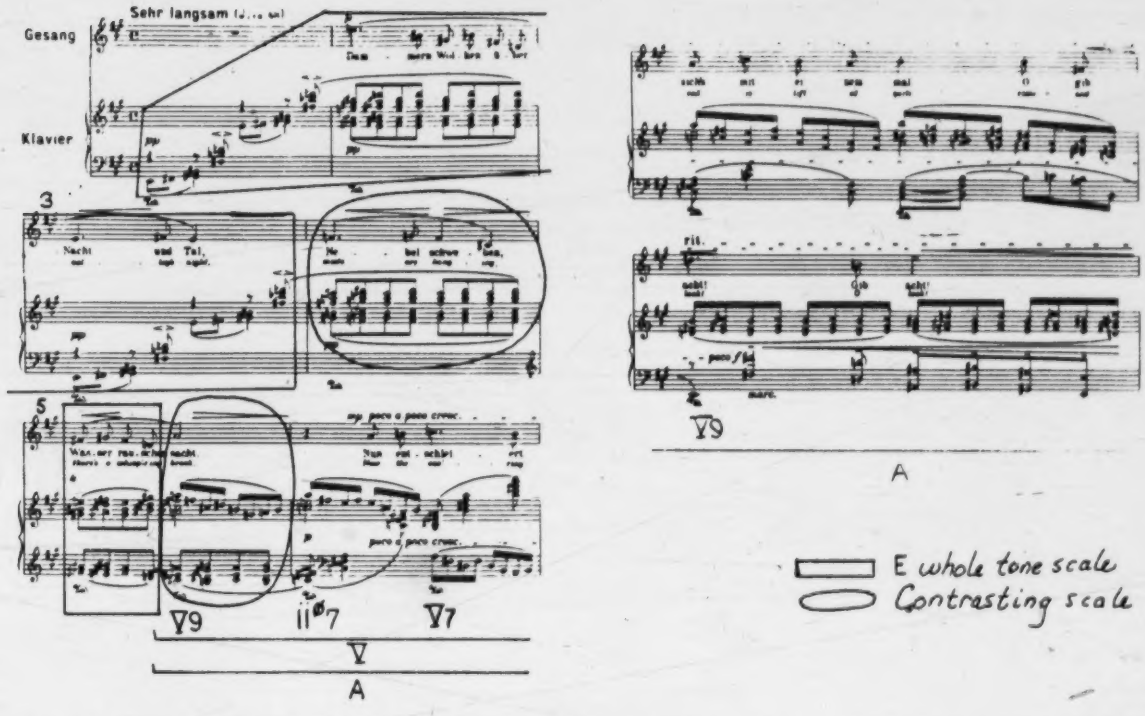
As we have already observed, a dominant/tonic relationship can exist between two whole-tone chords if their roots lie a fifth apart. Opposition between two whole-tone formations whose roots are a fifth apart is made explicit in the structure of "Nacht"--section B arpeggiates the augmented triad on A which is heard in contrast to the prolongations of the whole-tone hexachord on E in sections A and A'. Berg superimposes the inherent contrast between two whole-tone chords upon the dominant/tonic contrast of the common-practice tonal system--at one level the opposition between the whole-tone hexachord on E and the augmented triad on A is apparent; at another, the tonal conflict is between the dominant E and its tonic A.

Opposition between two whole-tone formations is also evident at the foreground level. The whole-tone hexachord on F in m. 4 functions as a neighbour to the one on E (see Example IV-23). The whole-tone hexachord on B (which functions as V9 of E) is prolonged from m. 5, resolving in m. 8 to the whole-tone hexachord on E, which itself functions as V9 of A (see Example IV-23).

In the restatement, the F whole-tone hexachord functions again as a neighbour to the one on E (see Example IV-24), and the final cadence of the piece resolves the whole-tone hexachord on B to the one on E (see Example IV-25).

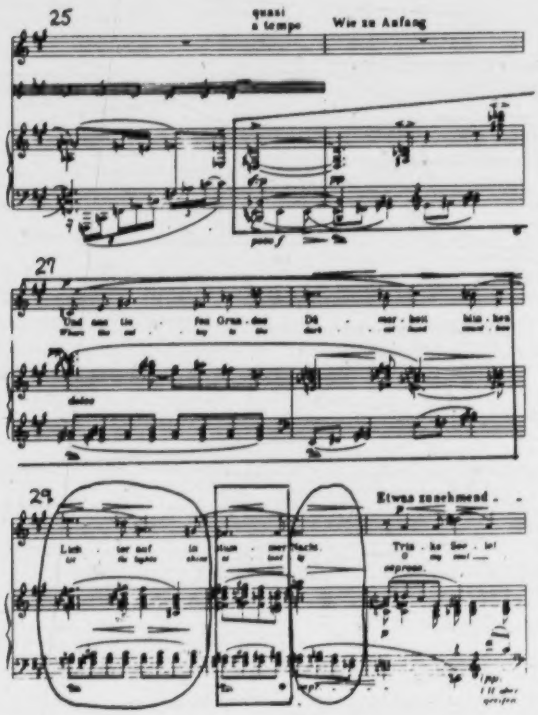
Whole-tone formations are also evident at the foreground in the second section. The whole-tone hexachord on F in m. 11 functions as an

Example IV-23: Piano-Vocal Score of "Nacht," mm. 1-8.

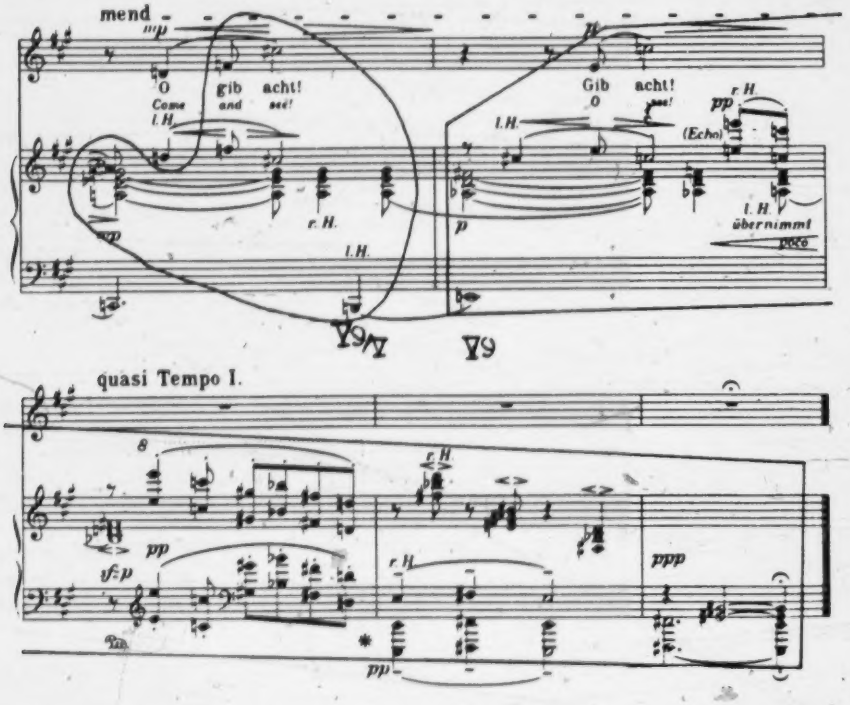


altered dominant ninth of B♭, and initiates a chain of dominants from V/B♭ through V/A♭. At that point the chain is interrupted, and the E♭ in the bass becomes the seventh of a third inversion dominant seventh of B♭. The V^4_2 of B♭ is prolonged, resolving to I6 in m. 15, which is then reinterpreted as the Neapolitan sixth of A. That in turn progresses to the dominant of A, again represented by the whole-tone hexachord on E (see Example IV-26).

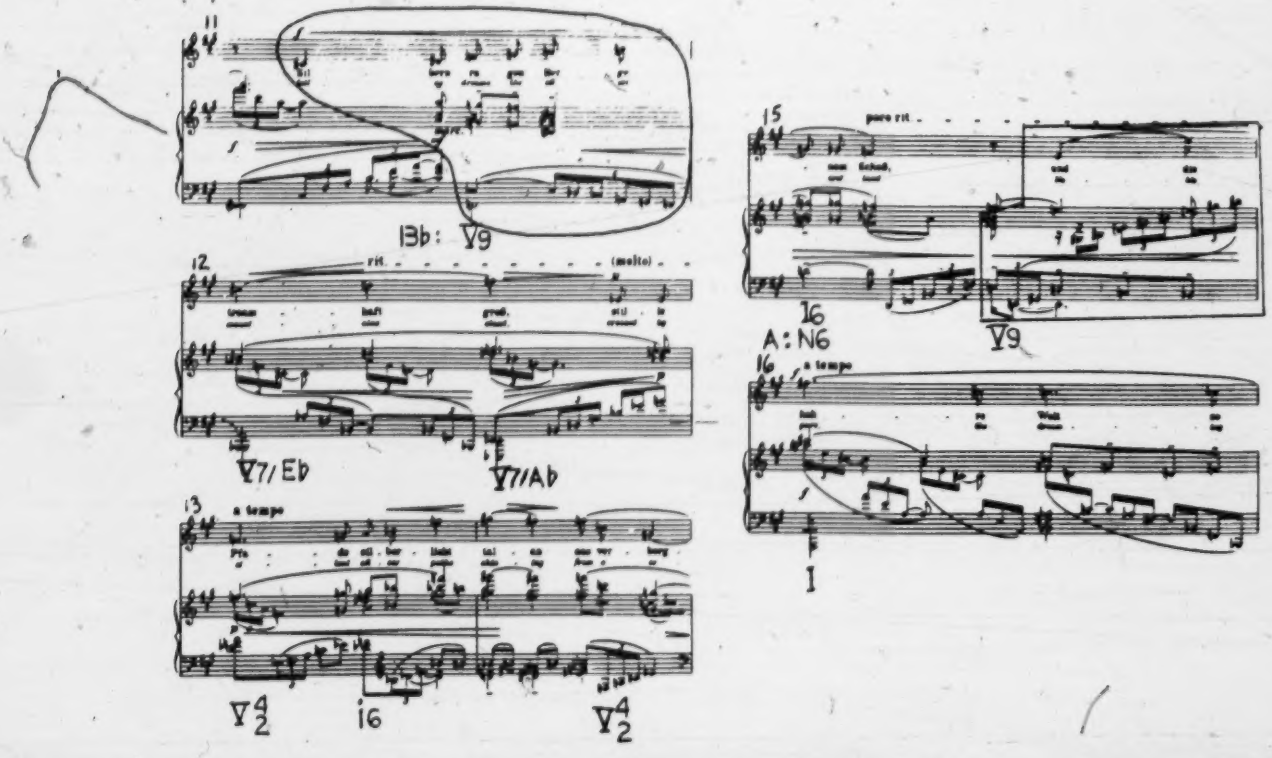
The function of the whole-tone scale within the tonal organization of the song is clarified in section B. It progresses in A major from I to V9 (represented by the hexachord on E) through a tonicization of IV (D) followed by a tonicization of the Neapolitan (B♭). This

Example IV-24: Piano-Vocal Score of "Nacht," mm. 25-30.

material comprises units c and d. In the repetition of this material, the overall harmonic progression is altered to prolong A through an arpeggiation of the A augmented triad (A-D♭-F). Unit c' begins (as did c) on I of A followed by a tonicization of IV (D). In m. 18, I6 of D is reinterpreted as the Neapolitan sixth of D♭. A tonicization of D♭ is followed by one of F minor which lasts until the end of section B. Throughout the section, therefore, A is prolonged, first by a conventional harmonic progression (I-IV-N-V), and then by a progression of major thirds which derives from post-common-practice tonal syntax (see Example IV-27).

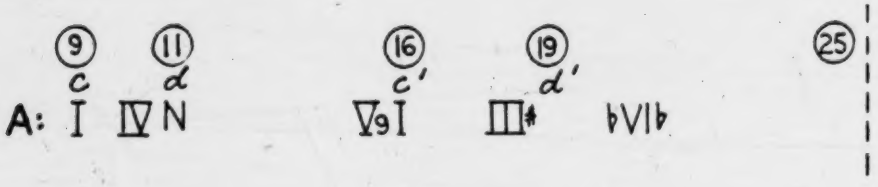
Example IV-25: Piano-Vocal Score of "Nacht," mm. 34-38.



Example IV-26: Piano-Vocal Score of "Nacht," mm. 11-16.



Example IV-27: Prolongation of A in Section B of "Nacht."



In "Nacht," Berg superimposes a symmetrical division (the augmented triad) upon an otherwise conventional prolongation of A major. At all levels of the piece, functional harmonic relationships are overlaid with non-diatonic whole-tone formations. The background level of section B comprises the arpeggiation of an augmented triad. At the foreground level, however, the degrees of the augmented triad (A-D♭-F) are tonicized with conventional harmonic progressions. These roles are reversed in sections A and A'. At the background level of these sections, the dominant of A, a functional harmony, is prolonged. The foreground prolongation of the dominant, however, is not conventional, but rather depends almost entirely on whole-tone figurations.

The tonal conflict of "Nacht" is kept, as it were, "suspended" at the end of the piece--that is, there is no sense in which the dominant of A as represented by the whole-tone hexachord on E is resolved.

* * *

From the forgoing analysis, we can determine a transition within Berg's Sieben Frühe Lieder from classical diatonic tonality to 19th-century chromatic tonality. Given our definition of these languages, it is evident that this tonal development is articulated by the gradual infiltration of chromaticism from the foreground to the background level of composition.

According to Schenker's own definition of classical diatonic tonality, chromaticisms derive from the process of tonicization, and function only at the foreground level as an elaboration of a diatonic framework. The music of Berg's "Im Zimmer" and "Nachtigall" conforms precisely to these terms.

As the tonal language of the nineteenth century became more highly chromatic at the foreground, chromaticisms were also generated at the middleground level. It is evident from our analysis of "Sommertage" and "Schilflied" that, in this transitional music, the voice-leading principles are almost entirely those of common-practice tonality, and the background structure upon which the musical coherence rests is still diatonic; but the analysis has also revealed a permeation of structural chromaticism into the middleground.

In the music of "Traumgekrönt," "Liebesode," and "Nacht," the chromatic scale becomes the basis for all tonal material, and results in both a pervasive semitone voice leading at the foreground, and a chromatic structural background.

Berg's Sieben Frühe Lieder represent, in a single collection, more than just three different stages in the growth of one of this century's greatest composers; they encapsulate a period of rapid

harmonic change in Western music as a whole. Their language encompasses characteristics of common-practice and post-common-practice tonality, and gives also some indication of the process of transition from one syntax to another. That these songs are among the most beautiful compositions of the early twentieth century is an additional but by no means secondary reward.

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11. Lewis, "Mirrors and Metaphors."

12. Ibid.

13. Schoenberg, Theory of Harmony, 384.

14. Ibid., 242.

15. Ibid., 390.

16. Ibid., 391.

17. Proctor, 149.

18. Ibid., 151.

19. Schoenberg, Theory of Harmony, 392.

20. Ibid., 397.

21. Ibid., 393.

22. Ibid., 397.

23. Proctor, 151.

24. Schoenberg, Theory of Harmony, 397.

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APPENDIX

Rosemary Hilmar's Comparison of Berg's Exercise Books with Schoenberg's Harmonielehre

BERGS *Harmonielehre-Hefte* (3 Hefte) — SCHÖNBERGS *Harmonielehre* (Ausgabe Universal Edition, Wien 1911)

[Heft I]

Unterrichts-stunde	Paginierung von Berg	Seite der *Harmonielehre*
	1	9
	2	20
	3	36
	4	34—36
	5	35
	6	36—37, 40
	7	
	[8]	44
	9	44
	10 [Aufgabe]	
	11	45
	12	44
	13	44
	[14]	45
	15	
	[16]	
	17	49
	[18]	51
	19	52
	[20]	52
	21	53
	[22]	52
	23	53
6te	24	59 f.
	25	61
	26	
	27—31	64—67
7te	32—39	66
	40	64
	41	
8te	42—49 [Oktavenparallelen]	
9te	50—53 [Oktavenparallelen]	
	54	83
10te	55—56	84 f.
11te	*„nur am Klavier probiert"*	
12te	57—60	84 f.
	61	88
	62—63 *„Aufgabe-Sätze damit"*	
13te	64—69	
	70	85
14te	71—73	111
[15te ?]	74	
	75—78	115
16te	79—81	115
17te	82	115
	83—87	121—125

[Heft II]

Unterrichts-stunde	Paginierung von fremder Hand	Seite der *Harmonielehre*
18te	5—8	124
19te	9—10	124
20te	11—14	125—127
21te	15—19	128
[22te ?]	20—22	128

Unterrichts-stunde	Paginierung von fremder Hand	Seite der *Harmonielehre*
23te	23	128
24te (*„erste nach den großen Ferien"*)		
	24—25	128 f.
25te	26—34	129—136
[Zählung der Unterrichtsstunden entfällt im folgenden]		
	35—41	142—162
	43—47 [am Ende: *„fehlend"*]	
	47—55	143—148
„Stunde"	56—65	147—153
„Stunde"	66—75	153—160
„Stunde"	77—84	164—168
„Stunde"	84—85	165—168
	86—89	169, 176—178
	90	180
	92	183—185
	98—102	185—191

[Heft II schließt mit dem Quintenzirkel; vgl. Kapitel *Modulation* in der *Harmonielehre*]

[Heft III]

	Paginierung von fremder Hand	Seite der *Harmonielehre*
	3—5	190—192
	6—30	192—212
	32—35	214—222
	36—38	229—230
	39—40	231—237
	41—47	238—242
	48—50	318—341
	51—52	342—343
	53	243
	66—70	296 ff.
	71—72	342 f.